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Building a Dynamic Model of Entrepreneurial Intention Formation in Sharing Economy Platform: The Resource-Based Theory Approach

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Building a dynamic model of entrepreneurial intention formation in sharing economy platform: The resource-based theory approach

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The student author and the program of study committee are solely responsible for the content of this dissertation. The Graduate College will ensure this dissertation is globally accessible and will not permit alterations after a degree is conferred.

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ABSTRACT

Although traditional entrepreneurship has long been acknowledged as a driving force of economic development and employment, the emergence of the Internet and the development of mobile devices provide a new paradigm of business economy called sharing economy. Peer-to-peer sharing economy platform contributes to the generation of a new form of entrepreneurship, which allows entrepreneurs to supply and exchange resources, products, and services with customers for profit. Despite such contributions, few researchers investigate entrepreneurship in sharing economy and identify the difference between entrepreneurship in traditional businesses and on the sharing economy platform.

This study primarily aims to explore the context of entrepreneurial intention on the sharing economy platform. The resource-based approach (Connor, 1991; Rumelt, 1987) is employed to demonstrate how different capital resources influence the self-perception of future entrepreneurs and their attitude toward an entrepreneurial venture on the sharing economy platform.

To realize the main aim of this study, a new scale is developed to precisely reflect the essential resources in an entrepreneurial venture on the sharing economy platform. In study I, a new scale of entrepreneurial capital is developed from a qualitative approach of item generation. A 24-item entrepreneurial capital scale with four dimensions (financial, social, intellectual, and human capital) is produced. For the subsequent scale purification, a quantitative approach is employed, and 150 responses are analyzed using exploratory factor analysis and confirmatory factor analysis. Four capital resources are classified under the

second-order factor model with one second-order factor (entrepreneurial capitals) and four capital sub-constructs.

Study II aims to validate the scale developed in study I and generate a structural model describing the relationships between (1) entrepreneurial capital and perception and (2) perception and intention. To validate the scale of entrepreneurial capital on the sharing economy platform, 308 responses are analyzed to acquire the best measurement model of perception and test the research hypotheses using structural equation modeling. Seventeen items of entrepreneurial capital are validated. Eleven items loaded on to three first-order factors (feasibility, desirability, and propensity) that contributed to one second-order factor (perception) are also supported. Finally, two hypotheses regarding the relationship among entrepreneurial capital, perception, and entrepreneurship intention are tested and supported. Entrepreneurial capital resources significantly affect the perception of individuals toward an entrepreneurial venture on the sharing economy platform. Perception also leads to overall entrepreneurship intention.

This study develops a new scale of entrepreneurial capital and an original measurement model of perception toward an entrepreneurial venture on the sharing economy platform. Comprehensive understanding enables this research to confirm the holistic model of entrepreneurship intention formation on the sharing economy platform. This study contributes to the body of literature regarding entrepreneurship, sharing economy, and the hospitality industry by significantly elaborating entrepreneurial intention in the context of the new economic platform. This study also benefits practitioners and educators by assessing and guiding capital resources in a business venture on the sharing economy platform.

CHAPTER 1

INTRODUCTION

1. Overview of entrepreneurship research

Business environments and economic conditions are changing dramatically (Wright & Dana, 2003). Given that such conditions continue changing, the notion that few large established firms are the major sources of economic growth requires revisiting to understand current economy (Stevenson & Lundström, 2001). Small- and medium-sized enterprises (SMEs) are widely acknowledged to play critical roles in the business environment and economy (Knight, 2001). Entrepreneurship is defined as the process of discovery, identification, evaluation, and exploitation of entrepreneurial opportunities (Eckhardt & Shane, 2003; Riley & Szivas, 2003). Entrepreneurship is an important impetus of small independent firms for socioeconomic prosperity (Brandstätter, 2011), such as creating wealth by promoting innovation, enhancing opportunity exploitation, and generating new jobs (Mottiar & Ryan, 2007; Ramos-Rodríguez, Medina-Garrido, & Ruiz-Navarro, 2012).

Existing entrepreneurship research primarily focuses on the classical format of business venture and new business startups (e.g., Alvarez & Busenitz, 2001; Chandler, & Hanks, 1998; Eckhardt & Shane, 2003; Ireland, Hitt, & Sirmon, 2003). Using the proliferation of the traditional format of SMEs as basis, researchers explore two mainstream research topics in entrepreneurship, namely, (1) the economic and social impacts of entrepreneurial SMEs, and (2) the attitude and behavior of entrepreneurs toward their business startup. The latter includes considering a business venture as an escape from unemployment, pursuit of financial stability, success in human resources management, and minimization of fear of failure caused by

perceived risks in the traditional format of SMEs' business venture (Carree et al., 2007; Cowling & Bygrave, 2002; Laguna, 2013).

The hospitality and tourism industries are crucial in supporting national economic growth (Dees, 2002; Li, 2008), and majority of enterprises in these industries are SMEs (Avcikurt, 2003; Bastakis, Buhalis, & Butler 2004). Many scholars agree that entrepreneurship is essential for the development of these industries (Russell & Faulkner, 2004; Lynch & MacWhannell, 2000).

However, entrepreneurship research in the fields of hospitality and tourism is scarce compared with that in other fields, such as marketing and finance (Ateljevic & Page, 2009; Ioannides & Petersen, 2003; Li, 2008). Lynch and MacWhannell (2000) suggested that knowledge is limited with regard to the determinants of pursuing an entrepreneurial venture in the hospitality industry. Shaw and Williams (2002) explored the importance of tourism entrepreneurship and discussed its role in understanding the effect of tourism on economic development. However, they claimed that the determinants of entrepreneurial activities, the antecedents of certain entrepreneurial ventures, and other factors related to entrepreneurship remain unclear (Shaw & Williams, 2002). Li (2008) argued that theoretical frameworks for accepting relevant determinants of entrepreneurship in the hospitality field remain scant.

Despite the significant role of SMEs in the hospitality and tourism industries, research interest on the understanding of SMEs' performance is minimal (Sajilan, Tehseen, & Adeyinka-Ojo, 2016). Examples include Ahmad, Jabeen, and Khan (2014); Gurel, Altinay, and Daniele (2010); and Iuliana, Carmen Maria, and Alexandrina (2016). Thomas et al. (2011) and Mshenga and Owuor (2009) suggested that further studies are needed to explore the motives of entrepreneurs for entrepreneurial ventures in the hospitality and tourism industries. Iuliana et al. (2016) further argued that developing theoretical and practical approaches to entrepreneurship in

the hospitality and tourism fields is challenging. This research gap primarily motivates the present researcher to conduct this study.

2. Problem statement

2.1. Scarcity of entrepreneurship research on the sharing economy platform

Despite the longstanding recognition of traditional entrepreneurship as a driving force of economic development and employment (e.g., Bardolet & Sheldon, 2008; Baron, 2007; Malchow-Møller, Schjerning, & Sørensen, 2011), the emergence of the Internet since the mid-1990s provides a new paradigm of business economy for the public to obtain flexible opportunities for engaging in original types of entrepreneurship. Many inexperienced prospective entrepreneurs seek an innovative business platform that can alleviate potential risks involved in a traditional business startup. Sharing economy is widely recognized as a new wave of business platform in peer-to-peer markets, and it emerges as an alternative format of consumption and distribution. As a business model that enables individuals to share resources through peer-to-peer networks when needed, sharing economy offers a novel avenue for people with limited business experience to engage in entrepreneurship by using existing sources (Böckmann, 2013). Peer-to-peer sharing economy platforms enable individuals to be classified as a new form of entrepreneurs because they supply and exchange resources, products, and services (Sundararajan, 2014; Fraiberger & Sundararajan, 2015).

Although prolific research exists in an area of sharing economy (e.g., Möhlmann, 2015; Owyang, Samuel, & Grenville, 2014; Zervas, Proserpio, & Byers, 2016), to the knowledge of the present author, few, perhaps none, of the researchers have investigated businesses in sharing

economy from the perspective of entrepreneurship and understood the difference between entrepreneurship in a traditional businesses setup and on the sharing economy platform.

Previous studies in the traditional entrepreneurship setting confirm that different types of capitals contribute to the success of entrepreneurship (e.g., Alvarez & Busenitz, 2011; Erikson, 2002; Shaw, Lam, & Carter, 2008; Unger et al., 2011; McGowan et al., 2015). Accordingly, identifying a proper combination of different types of capitals is critical for an entrepreneur planning a business startup (Alvarez & Busenitz, 2011; Chandler & Hanks, 1998). Resource-based theory (RBT) has been widely applied to underpin the significance of different types of capitals in traditional entrepreneurial ventures for business success (e.g., Alvarez & Busenitz, 2011; Shane & Venkataraman, 2000). By contrast, the present author argues that entrepreneurship, especially entrepreneurial capitals, should be analyzed and explained based on a specific business platform.

As explained, identifying capitals is the foundation of entrepreneurship research on the sharing economy platform. Generating measurement scales for entrepreneurial capitals in this platform can provide comprehensive knowledge on innovative entrepreneurship, which is the purpose of study I.

2.2. Scarcity of studies on entrepreneurial intention formation on the sharing economy platform

This study aims to understand the factor(s) that contribute(s) to entrepreneurial behavior in sharing economy. Entrepreneurial intention (EI) is the initial step to become an entrepreneur. EI is defined as the conscious state of mind that precedes the action and directs attention toward the goal of starting a new business (Fayolle et al., 2014). Forming an intention to start an

entrepreneurial career is the first step in the lengthy process of establishing a new business venture (Kessler & Frank, 2009). When predicting EI (in the hospitality industry as well as in other industries), numerous researchers have examined the different predictors of the pursuit of entrepreneurial venture as career success (Dimov & Shepherd, 2005; Nahapiet & Ghoshal, 1998; Liao & Welsch, 2005).

Shapero and Sokol (1982) developed a model of EI formation called the Shapero and Sokol's Entrepreneurial Event (SEE) model. This model explains the three following key variables that influence EI:

(1) perceived feasibility (PF), which refers to the degree of attraction an individual perceives toward a specific behavior

(2) perceived desirability (PD), which refers to the perception regarding their own capacity to carry out a specific behavior

(3) propensity to act (PA), which refers to the personal disposition to act on one's decisions that reflect volitional aspects of intention

However, the SEE model involves only these three direct determinants of EI and disregards any resource-based factors, including different sets of initial capitals, which tend to influence the attitude of individuals toward entrepreneurial venture.

Some researchers contend that personality and trait are the most essential determinants of EI (Pillis & Reardon, 2007; Thomas & Mueller, 2000; Utsch & Rauch, 2000). Others insist that education, culture, and other socio-demographic characteristics are key determinants (Collinson & Quinn, 2002; Gurel, Altinay, & Daniele, 2010; Krueger & Carsrud, 1993). These approaches focus on identifying the main motivation factors by delving into the "self" of individuals.

By contrast, a resource-based approach (Connor, 1991; Rumelt, 1987) demonstrates how different resources can be combined to cultivate self-perception as a future entrepreneur and develop attitude toward an entrepreneurial venture (Alvarez & Busenitz, 2001). In this context, different types of capital (e.g., social, intellectual, and financial) are extensively studied as heterogeneous resource combinations that influence the attitude of individuals toward an entrepreneurial venture (Alvarez & Busenitz, 2001; Nahapiet & Ghoshal, 1998).

Although RBT addresses fundamental issues related to resources directly or indirectly invested in entrepreneurial ventures, this theory fails to link the heterogeneity achieved by combining various capitals with the behavioral intention to pursue an entrepreneurial venture. A framework of EI formation can address this research gap by postulating that (1) behavior is determined by the intention to perform that behavior, (2) intention emerges from overall evaluation and perception, and (3) perception originates from attitude, which is a function of salient belief (Ajzen, 1989).

Combining different capitals can significantly influence the attitude and intention of entrepreneurs toward their business venture. Given that sharing economy has its own distinguishing characteristics, a resource-based structure of EI should be re-designed and empirically tested specifically on the sharing economy platform. Different capitals also separately contribute to EI formation. Therefore, grounding the underlying relationships and association between capitals as resources and the EI of individuals is vital.

3. Research purpose and objectives

This study primarily aims to explore the context of EI on the sharing economy platform. This study employs the SEE model describing the three main antecedents of EI (PF, PD, and PA)

in a general business setting. To develop an extended model of EI formation, RBT is employed to investigate the importance of different sets of capitals in EI formation on the sharing economy platform. The resource-based structure of EI has not been designed and tested. Individuals' belief regarding the value of different entrepreneurship-related capitals also contribute to PF and PD in terms of EI formation. This study fills this research gap because it grounds the underlying relationship and association between capitals and the EI of individuals. This study conceptualizes entrepreneurship in sharing economy and devises a scale with 16 measurement items that reflect critical resources in an entrepreneurial venture on the sharing economy platform. The original SEE model indicates that venture credibility, which is a multidimensional construct, is a significant determinant factor that can be explained by PF and PD. However, Venture credibility has not been fully demonstrated as a key independent variable of EI on the sharing economy platform. Exploring its structural dimensions, including PD and PF, and the way it functions between capital and intention is vital. Using the SEE model as basis, the measurement model is modified to identify the best fitting model for precisely reflecting venture credibility as a crucial independent variable in the context of entrepreneurial venture on the sharing economy platform.

The specific objectives of this study are to (1) develop a new scale that reflects essential capitals in an entrepreneurial venture on the sharing economy platform, (2) develop a holistic EI model that applies RBT to build a theoretical framework with entrepreneurial capitals, and (3) investigate the relationship between entrepreneurial capital, which is a set of different entrepreneurship-related capitals, and venture credibility perceived by entrepreneurs in the context of entrepreneurship on the sharing economy platforms.

With these research objectives, this study (1) theoretically develops a valid scale that can contribute to the growing body of literature on entrepreneurship in sharing economy, (2)

structures venture credibility as a key determinant factor of entrepreneurship on the sharing economy platform, and (3) empirically tests and proves a holistic model of EI formation extended from RBT. For the practical contribution of this study, a new scale of entrepreneurial capital in sharing economy can aid prospective entrepreneurs in critically assessing their capital structure, which is necessary to minimize the risks inherent in their entrepreneurial venture. Current entrepreneurs on the sharing economy platform can examine their capital structure and address gaps identified from the review of the scale.

4. Dissertation structure

This dissertation is organized mainly into the four following segments: (1) Introduction, (2) Study I, (3) Study II, and (4) Discussion. Studies I and II contain five parts each, including overview of study, literature review, research methodologies, results, and conclusion. Study I focuses on the development of a new scale of entrepreneurial capital in sharing economy. A qualitative approach is employed to satisfy uniqueness and explore the difference of entrepreneurial capitals on the sharing economy platform. Study II quantitatively examines a holistic structural model of EI formation based on RBT by using the newly developed scale from study I. The final discussion includes the theoretical contributions and practical implications of this dissertation followed by the limitations and suggestions for future research.

5. Definition of key terms

To facilitate comprehension of the conceptual framework used in the research, the following definitions are presented:

Entrepreneurship - the process of discovery, identification, evaluation, and exploitation of entrepreneurial opportunities (Eckhardt & Shane, 2003).

Sharing economy - a business model that enables individuals to share resources through peer-to-peer networks when needed (Böckmann, 2013).

Resource - stocks of available factors that are owned or controlled by a firm (Amit & Schoemaker, 1993). Various beliefs and values regarding resources significantly influence the ability of entrepreneurs to recognize entrepreneurial opportunities and evaluate their capability for exploiting these opportunities (Alvarez & Busenitz, 2011).

Financial capital - a firm's ability to obtain access to internal capital and secure external capital (Coleman, 2007).

Social capital - a set of social resources embedded in relationships that can be developed and accumulated by individuals in a group and/or community (Burt, 1992).

Intellectual capital - intangible assets possessed by a firm (Bueno, Paz Salmador, & Rodríguez, 2004). As the definition of this term has not reached universal consensus, the present study explores key characteristics of intellectual capital in entrepreneurship through a qualitative approach to develop a new definition.

Human capital - the level of skills and abilities developed through formal education, training, and work-related experiences (Coleman 1988).

Perceived feasibility - the perception of individuals regarding their own capacity to perform a specific behavior (Shapero & Sokol, 1982).

Perceived desirability - the degree of attraction that an individual perceives toward a specific behavior (Shapero & Sokol, 1982).

Propensity to act - the personal disposition to act on one's decisions that reflect the volitional aspects of intention (Shapero & Sokol, 1982).

Entrepreneurial intention - the conscious state of mind that precedes the action and directs attention toward the goal of starting a new business (Fayolle et al., 2014).

CHAPTER 2

STUDY I:

DEVELOPING A NEW ENTREPRENEURIAL CAPITAL SCALE IN SHARING ECONOMY

1. Overview of study I

Past studies on entrepreneurial capitals are merely geared toward a comprehensive understanding of the different types of economic platforms and their characteristics. Recently, different capitals have been independently studied to highlight the nature of specific entrepreneurship characteristics and dimensions of capitals in an entrepreneurial venture setting. Although some studies extensively identify different resources of capitals (e.g. financial capital, social capital, and intellectual capital), little to none successfully develops a universal scale that measures entrepreneurial capital using the resource-based approach.

Study I chiefly aims to (1) ground diverse perspectives toward resources that are likely to be components of certain capitals and (2) describe underlying dimensions of key capitals in an entrepreneurial venture on the sharing economy platform. Developing a proper measurement scale for entrepreneurial capital that reflects the characteristics of the sharing economy platform should precede to comprehensively understand the uniqueness of this platform along with the entrepreneurial ventures in this economic setting.

To realize the main research goal, a specific research objective of this study is to devise a new scale of entrepreneurial capitals for the new business context by (1) collecting varied opinions toward any capital types associated with sharing economy and (2) performing both qualitative and quantitative statistical analyses of the generated data. The results of study I are

expected to inform people of the nature of innovative entrepreneurship and provide them with the knowledge of how to prepare for their own business startup on the sharing economy platform.

This chapter includes the three following parts: (1) in-depth review of previous literature that provides theoretical foundation of the study, (2) scale development that indicates entrepreneurship characteristics on the sharing economy platform, and (3) scale purification that justifies the scale developed in this study. Methods from the thorough research design can justify the procedural validity of the scale development and the statistical reliability of the scale purification. The conclusion interprets the results of study I regarding entrepreneurship on the sharing economy platform.

2. Literature review

2.1. Sharing economy

For the past few years, product transformation (i.e., from owning to sharing) and the perception of shared goods have altered substantially (Botsman & Rogers, 2010; Gansky, 2010). Historically, co-owning (e.g., timeshares in the lodging industry) has dominated the market as a platform of shared goods; the notion of sharing bikes, cars, or even rides on an on-demand basis is only now starting to gain widespread popularity (Cohen & Kietzmann, 2014). Given that individuals sharing goods are directly linked to those who are willing to use them, the emerging "sharing economy" can be associated with the increasing population growth and density. The proliferation of the Internet and mobile Internet services allow individuals to access peer-to-peer marketplaces for sharing goods and obtain short-term rentals (Fraiberger & Sundararajan, 2015;

Nov, Naarman, & Ye, 2010). Airbnb (living space rentals for short periods), Getaround (short-term car rentals), and Lyft and Uber (urban transportation) are some examples of the new economy platform in the marketplace as collective consumption (Botsman & Rogers, 2010; Fraiberger & Sundararajan, 2015; Sundararajan, 2013).

"Sharing economy" is defined as a business model that enables individuals to engage in peer-to-peer sharing of resources as needed (Böckmann, 2013). Recently, the concept of sharing has evolved to a for-profit business model that conceptualizes the phenomenon of collaborative consumption based on the accessibility of the resources (Böckmann, 2013). Belk (2014, p. 1597) explained collaborative consumption as "people coordinating the acquisition and distribution of a resource for a fee or other compensation." Belk (2007, p. 126) further argued that sharing activity should be understood as "the act and process of distributing what is ours to others for their use and/or the act and process of receiving or taking something from others for our use." Assets that are traditionally sources of profit-driven supply for individuals are transformed as services for consumption involving durables and human services between individuals or peers rather than between a customer and a firm (Bardhi & Eckhardt, 2012; Belk, 2014; Fraiberger & Sundararajan, 2015).

Sharing economy and collaborative consumption must involve compensations for the economic activities concerning the sharing and transferring of ownership (Möhlmann, 2015). This new form of peer-to-peer exchange is growing rapidly (Fraiberger & Sundararajan, 2015; Botsman & Rogers, 2010). Approximately more than 80 million people in the US are estimated to be involved in any forms of collaborative consumption (Owyang, Samuel, & Grenville, 2014). The increasing number of newly established firms on the sharing economy platform can be a proxy of its popularity and growth in the marketplace (Böckmann, 2013).

With approximately 400,000 public city bikes available worldwide, bicycle sharing is one of the fastest growing trends in transportation (Fishman et al., 2013). Apart from bicycle sharing, Zipcar (car sharing), Spotify (music streaming), eRetah (all you can read books for a monthly fee), and SnapGoods (tools sharing) are excellent examples of sharing economy. Among many examples of business firms on the sharing economy platform, Airbnb, which offers temporary space such as apartments, house, and/or houseboats, is one of the major companies in the marketplace globally. By 2015, Airbnb involves more than 57,000 active cities in 191 countries with over 640,000 hosts and 2.3 million listings worldwide (DMR, 2016). Airbnb was valued at 30 billion USD in 2016, which is higher than most established hotel brands (DMR, 2016; Fraiberger & Sundararajan, 2015). Uber, an urban transportation platform, is in 400 cities in 70 different countries with more than 160,000 drivers serving over 2 billion trips globally as of 2016 (DMR, 2016). Lyft, the largest competitor of Uber, appears in 65 cities in 28 US states and is valued at over 500 million USD as of April 2016 (DMR, 2016). Owyang and Samuel (2014) also showed that approximately one in four respondents uses one or more of these "collaborative economy" products or services for a year in the US, UK, and Canada. Several studies also indicate that over 80 million people in the US are involved in collaborative consumption activities with a market value of up to 100 billion USD (Botsman & Rogers, 2010; Lamberton & Rose, 2012; Owyang, Samuel, & Grenville, 2014).

The sharing economy platform of peer-to-peer firms emerged after the global economic recession from 2008 to 2010 (Böckmann, 2013; Kriston, Szabo, & Inzelt, 2010). With the concern on customers' spending during the aftermath of the financial crisis, the need for sustainable solutions that combine environmental concern and behavioral reliance on the Internet enabled the success of the sharing economy platform in the marketplace (Cohen & Kietzmann,

2014). Given the nature of the peer-to-peer platform, technological innovations (ease of access to the platform) and flexible supply (ease of market entry) fueled the rapid growth of collaborative consumption in the market (Zervas, Proserpio, & Byers, 2016).

Many researchers attempted to identify the determinants or drivers of the sharing economy. In a research on Airbnb, Möhlmann (2015) ascertained four variables (cost savings, familiarity, trust, and utility) that positively influence the use of sharing option. Previous researchers highlighted the significance of societal factors, such as population and density (Kriston, Szabo, & Inzelt, 2010), sustainability concerns and consideration of corporate social responsibility (Porter & Kramer, 2011), and novel means of communication (Böckmann, 2013). Many researchers cited economic factors for the rapid growth of collaborative consumption. Botsman and Rogers (2011) explained that monetizing idle inventory and/or owned resources can be a new profit source for businesses and a novel means to effectively utilize such resources and inventories (Böckmann, 2013; Botsman & Rogers, 2011). Chui et al. (2012) demonstrated that numerous financiers are willing to invest on sharing startups. Kriston et al. (2010) claimed that over 2 billion USD were invested in 200 startups on the sharing economy platform. Technological development has also been explored as a significant driver of the sharing economy. Constantinides and Fountain (2008) highlighted that social network sites and the ease of access to social networking significantly facilitate peer-to-peer businesses by providing opportunities to discover demands and supplies. Black and Lynch (2004) emphasized the value of mobile devices in the success of sharing economy. Previous researchers also explored the widespread use of credit card as a payment system with high transaction security that enables quick transaction in peer-to-peer businesses (e.g., Black & Lynch, 2004; Böckmann, 2013; Nakamoto, 2012).

Based on the review of previous works on sharing economy and collaborative consumption, the present author argues that this new business platform generates (1) new consumption facilitated by the peer-to-peer platform, (2) efficient use of under-utilized resources and assets, (3) availability of diverse consumption options, and (4) entrepreneurship. In particular, peer-to-peer business is widely acknowledged as a business platform that cultivates the growth of entrepreneurial ventures. With person-to-person platforms, individuals can easily exchange products, services, and resources. Thus, individuals who supply resources, products, and services can be entrepreneurs in the marketplace. By benefiting from a peer-to-peer business platform, low-risk micro-level entrepreneurship can be the initial step into the business world for individuals to secure their income and widen their social and occupational networks.

2.2. Entrepreneurship

According to its development and proliferation as a phenomenon, entrepreneurship has been explained by numerous researchers from various perspectives and emphases; therefore, the definition of entrepreneurship remains inconsistent and elusive (Ahmetoglu, Leutner, & Chamorro-Premuzic, 2011; Hisrich, Langan-Fox, & Grant, 2007). Most definitions provided before the 20th century originated from the study of Cole (1959), which defined entrepreneurship as a purposeful activity of an individual or a group to develop and establish a new firm and make it grow based on a profit-oriented performance. Vesper (1983) defined entrepreneurship as the creation of a new business. Similarly, Low and MacMillan (1988) explained entrepreneurship as the formation of a new enterprise. Learned (1992) also described entrepreneurship as an activity that involves creating a new independent business. The aforementioned definitions are based on the significance of entrepreneurship as the appearance of a driving force in a business economy,

such as new employment opportunities and wage growth (Malchow-Møller, Schjerning, & Sørensen, 2011), and the economic effects of social and community contributions (Bardolet & Sheldon, 2008; Baron, 2007).

Since the 21st century, scholars recognize that starting a new business should not be the only foundation for creating economic success and wealth; discovering and utilizing unexploited entrepreneurial opportunities should also be considered (Eisenhardt, Brown, & Neck, 2000; McCline, Bhat, & Baj, 2000; Shane & Venkataraman, 2000). Exploiting entrepreneurial opportunities contributes to the formation of the sustainable competitive advantages of firms and the creation of wealth (Ireland, Hitt, & Sirmon, 2003). Considering this propensity, entrepreneurship is defined as the process of discovery, identification, evaluation, and exploitation of entrepreneurial opportunities (Eckhardt & Shane, 2003; Riley & Szivas, 2003).

A thorough review of previous literature can explain factors directly related to entrepreneurship using the following multi-dimensional perspectives: (1) economic and financial aspects oriented from economic rationality and financial feasibility; (2) social and psychological aspects focusing on the characteristics, traits, motivation, passion, propensity, and intention to pursue entrepreneurship of individuals; and (3) managerial attributes. The latter pertain to the theoretical foundation for making an appropriate decision by following a rational process based on knowledge, information, and human resources.

2.3. Capitals in entrepreneurship

RBT depicts a firm as a heterogeneous bundle of unique and hard-to-imitate resources and capabilities (Barney, 1991; Conner, 1991; Rumelt, 1991; Wernerfelt, 1984). In this theory, resources can be defined as the “stocks of available factors that are owned or controlled by the

firm" (Amit & Schoemaker, 1993, p. 35). For sustainable strategic development, resource heterogeneity is the most basic condition of RBT (Barney, 1991). The heterogeneous composition of a resource bundle should be secured to achieve sustainable advantage. Applying this foundational resource-based view, Alvarez and Busenitz (2011) explained the significance of the heterogeneity of resources in the context of entrepreneurship. They asserted that various beliefs and values regarding resources significantly influence the ability of entrepreneurs to recognize entrepreneurial opportunities and evaluate the capability to exploit these opportunities (Alvarez & Busenitz, 2011; Shane & Venkataraman, 2000). In this approach, heterogeneity is a common attribute of both RBT and entrepreneurship theory. However, RBT tends to focus on the heterogeneity of resources, whereas entrepreneurship theory tends to focus on heterogeneity in beliefs and perceptions toward the value of resources (Alvarez & Busenitz, 2001).

As defined in the previous section, entrepreneurship is a process of opening up a new business. Based on different sets of capitals, an individual can decide whether to initiate a business venture. RBT explains that individual's capitals and ability to access any types of capitals can be resources for business success. Given this distinction between common RBT and entrepreneurship research setting, this study focuses on the belief and perception of entrepreneurs toward the value of the capitals that they actually own and/or believe they can access in their business startup.

Considering the RBT's heterogeneity of resources and entrepreneurship theory's belief and perception toward the value of resources as an initial capital for a business startup, different individual capitals should be explicitly explored. In previous studies, financial capital (e.g., household wealth, access to other financial capitals), intellectual capital (organizational, human, and customer related) and social capital (structural, relational, and cognitive dimension) play

important roles in deciding whether to pursue an entrepreneurial venture. Such capital mix is essential in forming an individual's attitude toward an entrepreneurial venture in terms of EI. Three types of primary capitals, namely, social, financial, and intellectual capitals, are thoroughly discussed in the succeeding subsections.

2.3.1. Financial capital

Many previous researchers find that initial financial capital comes from various types of sources, such as personal property, partners, and outside investors (Van Auken & Doran, 2011; Downes & Heinkel, 1982). Financial capital includes opportunities for loans and credit, numerous investment opportunities, and other business relationships and structures (McGehee et al., 2010). Financial capital of entrepreneurs must be classified as internal capital provided by entrepreneurs themselves and external capital obtained from outside investors and lenders. This classification further helps entrepreneurs to develop an optimized capital structure (Chandler & Hanks, 1998). Thus, financial capital can be defined as a firm's ability to gain access to internal capital and secure external capital (Coleman, 2007). Internal capital refers to personal financial resources, including household wealth and income (Evans & Jovanovic, 1989; Kim, Aldrich, & Keister, 2006). External capital refers to debt capital and a firm's willingness to apply for it (Evans & Jovanovic, 1989).

If an entrepreneur possesses inadequate internal financial capital, then he/she may be inclined to approach credit markets to capitalize his/her new business. However, a general understanding of the characteristic of entrepreneurial venture, that is, high risk and low possibility of success, can add difficulty in obtaining external financial capital, such as bank loans or other investments. Lenders (e.g., banks or investors) are prone to require high

compensation by increasing borrowing costs because of the high risk of entrepreneurial venture. Entrepreneurs solve this problem by frequently using personal capital as collateral for securing external capital (Jurik, 1998; Kim et al., 2006).

Financial capital is essential for entrepreneurs to exploit venture opportunities. Many researchers suggest that initial financial capital is positively associated with new venture firm's performance, possible survival, and sustainable growth (Chandler, & Hanks, 1998; Cooper, Gimeno-Gascon, & Woo 1994; O'Neill & Duker 1986). Firms with substantial financial capital are widely acknowledged to be capable of investing considerably in the preparation of the business startup, such as service and product development, marketing, and production (Chandler, & Hanks, 1998; Cooper et al., 1994).

Many studies show that a shortage of financial capital can be a major barrier for the success of small businesses (Coleman, 2007; Honig, 1998). Limited access to financial capital is one of the critical reasons for the high-rate failure in many small start-ups (Bruno & Tyebjee, 1985; Peterson & Shulman, 1987). The total amount of initial financial capital, including internal and external resources, can be concluded to influence entrepreneurs' ability to withstand unexpected hardships and harsh market circumstances in the start-up phase (Cooper, Gimeno-Gascon, & Woo, 1994). The capacity of financial capital also directly affects business performance; it helps entrepreneurs to overcome the outside shocks and unpredictable fluctuations (Cooper et al., 1994). Cooper and Gimeno-Gascon (1990) empirically proved that the more capital entrepreneurs can exploit, the higher the likelihood of survival and the better the business performance (e.g., Dunn & Holtz-Eakin, 2001). Thus, during the developing phase of the initial capital for a business start-up, deciding how much financial capital they require and

how to optimize capital mix (including internal and external capitals) is vital for entrepreneurs (Chandler, & Hanks, 1998).

Financial capital can be exchanged for other inadequate resources that are essential for business start-up (Alsos, Isaksen, & Ljunggren, 2006; Manolova et al., 2002). Using financial resources, entrepreneurs can hire human resources that can strengthen their weakness (Cooper, Woo, & Dunkelberg, 1988) and widen networks and relationships with those deeply related to their business (Marsden & Hurlbert, 1998). Therefore, entrepreneurs can utilize their financial capital to exploit entrepreneurial opportunities and develop sustainable strategies (Aldrich, 2000; Cooper, Gimeno-Gascon, & Woo, 1994). Given that financial capital can be exchanged for other essential resources, people with adequate amount and diverse channels of financial capital can possess higher intention to pursue entrepreneurship than those without (Kim, Aldrich, & Keister, 2006; McGehee et al., 2010).

2.3.2. Intellectual capital

The concept of intellectual capital (IC) is significantly based on the necessity of managing organizational knowledge (Mouritsen & Larsen, 2005). Previous researchers widely demonstrate that as intangible asset of business firms, IC can be a crucial source of creating value for firms (Bontis, 1999; Dumay, 2009; Stewart, 1997). Historically, IC has been defined differently as (1) the intangible assets possessed by a firm (Bueno, Paz Salmador, & Rodríguez, 2004); (2) the knowledge and knowing capability of social collectivity, such as an organization, social community, and/or firm (Nahapiet, & Ghoshal, 1998); (3) an intangible resource generating strategic value for an organization (Díez et al., 2010); (4) a valuable resource and a capability for action based on knowledge and knowing (Coleman, 1988); and (5) the economic

value of intangible assets of a company (Bontis, 1999; Organization for Economic Co-operation and Development or OECD, 1999). A universal consensus on the definition of IC is albeit relatively elusive and mostly originated from corporation perspectives. Finding the most appropriate definition and IC model fitting the research context of entrepreneurship is essential.

Considering that IC is conceptualized by its intangibility, IC has been acknowledged as a firm's possible strategic asset that generates sustainable competitive advantage and stable financial performance in the marketplace (Barney, 1991; Chen, Cheng, & Hwang, 2005). Most of the IC literature is based on an economics perspective. As economists indicate, physical and human capital play critical roles in enhancing a firm's financial performance and creating derivative value, and knowledge is recognized as a form of invisible, intangible, and unaccountable asset (Marshall, 1965; Nahapiet, & Ghoshal, 1998). Many researchers place added emphasis on the difference between the book value and market value of a firm when understanding the significance of IC (Bontis, 1999; Donaldson & Preston, 1995; Edvinsson & Malone, 1997). In particular, highlighting the significance of IC in understanding the difference compels many researchers to determine a multi-dimensional model of IC.

Kaplan and Norton (1992) classified IC into six categories, namely, internal process, customer process, learning and growth, financial, competence, and relational perspectives. This classification is based on the scorecard generated by managers with an overall understanding regarding the nature of operation and outcome performance as well as a capability to analyze and classify resources necessary in their management (Kaplan & Norton, 1992, 2001). The OECD) 1999) offered a workable definition of IC with two categories based on the economic value of intangible assets of a company, namely, organizational capital and human capital. Sveiby (1998) also argued that IC features three dimensions based on the monitoring of intangible assets, and

these dimensions are internal structure, external structure, and personnel competence. Unlike other IC models, this model places extra focus on both internal and external structures as sources of intellectual properties and on the psychological belief regarding the capabilities of individuals willing to create a venture (Sveiby, 1998).

Edvinsson and Malone (1997) made an IC model with two dimensions, namely, human capital and structural capital, and Bontis (1999) further developed one of the most reliable and applicable IC model by adding another dimension, which is customer (relational) capital. Human capital includes individual tacit knowledge owned by members of an organization, such as skills, information, experience, and learning outcome that can be transformed into abilities of individuals to perform their work. Customer capital includes the potential intangibles of firms originating from the knowledge embedded in the relationships external to the firm, such as customers, suppliers, and/or other industry organizations and associations (Wu, Chang, & Chen, 2008). Finally, structural capital includes knowledge not in individuals but in an organization embodying structural tacit knowledge, such as mechanisms and structures of organizations, databases, protocol of work, know-how, and managerial strategies that can generate higher value than what the firm physically possesses (Bontis, 1999; Wu et al., 2008).

Based on the models above, Guthrie and Petty (2000) modified an IC model based on three dimensions, namely, internal (organizational/structural) capital, external (customer/relational) capital, and employee competence (human capital). Internal capital includes intellectual properties, such as patents, copyrights, and logo and trademarks, and infrastructure assets, such as management and operational philosophy, corporate culture, IT systems, and financial relations. External capital embraces intangible assets embedded in the

relationships among customers, distribution channels, business collaborations, licensing agreements, and contracts.

Employee competence mainly represents human resources and capitals that can be exploited to maximize productivity and efficacy (Guthrie & Petty, 2000). This feature includes know-how, education, work-related knowledge and competency, entrepreneurial passion and spirit, innovativeness and proactive, and risk-taking propensity (Guthrie & Petty, 2000; Zerenler, Hasiloglu, & Sezgin, 2008). However, these models are based on (1) the currently operating circumstances of firms or (2) corporate entrepreneurs more focused on their operational characteristics related to the utilities of intellectual capital in operating corporate-level companies (Subramaniam & Youndt, 2005; Ugalde-Binda et al., 2014). In terms of the nature of entrepreneurial venture, intellectual capital must be oriented from the entrepreneurship.

Many entrepreneurship researchers attempted to make a unique IC model in the context of entrepreneurship (Davidsson & Honig, 2003; Gimeno et al., 1997; Puhakka, 2009; Ugalde-Binda et al., 2014). Among the IC models developed by entrepreneurship researchers, the one offered by Gimeno et al. (1997) is possibly the most workable model in the entrepreneurship research context. Entrepreneurship research must be oriented from the discovery of opportunity (Erikson, 2002; Davidsson & Honig, 2003; Ucbasaran, Westhead, & Wright, 2008). In this first stage of entrepreneurial venture, entrepreneurs must utilize their information, experience-based skills and knowledge, managerial experience, and intrinsic motivation and passion to pursue entrepreneurial ventures (Puhakka, 2009). Therefore, entrepreneurs must involve their IC in discovering, exploiting, and seeking an entrepreneurial opportunity (Davidsson & Honig, 2003; Gimeno et al., 1997; Puhakka, 2009).

In understanding the IC of entrepreneurs, Ardichvili, Cardozo, and Ray (2003) highlighted capabilities of interpreting information related to the business domain. Following this approach, an entrepreneurial IC model is developed, which deals with the capabilities of entrepreneurs that are divided into four categories, namely, domain knowledge, formal knowledge, management experience, and intrinsic motivation and creativity (Gimeno et al., 1997; Ardichvili et al., 2003, Puhakka, 2009). Domain knowledge means the awareness of opportunity and information and human resources related to a particular business domain. Under this category, entrepreneurs must exhibit capabilities of knowing competitors, customers, and suppliers as well as predicting future changes and trends and analyzing regulations and policies of the business domain (Gimeno et al., 1997). Formal knowledge can be characterized by entrepreneurs' knowledge that have been collected to exploit information and opportunities. This finding is based on formal education, training, and other skills and knowledge an entrepreneur can apply to a venture (Gimeno et al., 1997). Management experience embraces any other experiences related to operation and management. These experiences can include leadership, managerial positions, and seeking entrepreneurial opportunities (Gimeno et al., 1997). Intrinsic motivation can be viewed as a pull factor in terms of EI and intention to seek any entrepreneurial opportunities. Internal commitment, involvement in decision making, and aspiration to establish one's own business can drive an individual to pursue an entrepreneurial venture (Kuratko, Hornsby, & Naffziger, 1997). Finally, creativity can be demonstrated as a process of interpreting information and making an entrepreneurial decision based on the thinking style of entrepreneurs (Dimov, 2007; Gimeno et al., 1997; Sternberg, 2003).

2.3.3. Social capital

Many researchers studying social capital are mostly concerned with the significance of relationships as a resource for social action (Baker, 1990; Coleman 1988; Liao & Welsch, 2005). Social capital has been conceptualized as a set of social resources embedded in relationships that can be developed and accumulated by individuals in a group and/or community (Burt, 1992; Payne et al., 2011). Social capital can accommodate the integrative theoretical needs of entrepreneurship because it highlights the roles of social interactions across various contexts (De Carolis & Saparito, 2006; Kim & Aldrich, 2005; Payne et al., 2011). Social capital has been widely acknowledged to possibly occur when individuals are interacting, such as sharing knowledge, experience, opinions, and information with others in social relations (Brown & Duguid, 2001; Nambisan & Baron, 2009). Social capital can be utilized to bolster entrepreneurship research and examine various entrepreneurship concepts and variables, such as EI (e.g., Liao & Welsch, 2005), financial performance and economic growth (e.g., Maurer & Ebers, 2006), and new venture creation based on innovativeness (e.g., Tsai & Ghoshal, 1998).

Social capital includes a set of intangible assets, such as socially believed norms and pursued values associated with the relationships expressed by communication, belief, bonding, and identification (Liao & Welsch, 2005; Tsai & Ghoshal 1998; Putnam, 1995). These intangible assets can bind members or communities closely related to one another (Liao & Welsch, 2005; Nahapiet & Ghoshal, 1998). These intangible assets significantly influence members' psychological status of whether to stay in a current relationship (Chiu, Hsu, & Wang, 2006). In this respect, social capital is defined as a set of assets embedded in the relationships of individuals, communities, networks, and/or societies (Liao & Welsch, 2005; Nahapiet & Ghoshal, 1998; Tsai & Ghoshal, 1998; Putnam, 1995).

Historically, many researchers agree that social capital cannot be understood in a uni-dimensional construct. Rather, they agree that social capital must be a multi-dimensional construct embracing distinct factors relevant to social capital as a higher order factor (Coleman, 1988; Burt, 2000; Katz & Gartner, 1988; Nahapiet & Ghoshal, 1998; Zukin & DiMaggio, 1990). Katz and Gartner (1988) described social capital as a set of properties necessary and sufficient for venture creation. They named four properties classified as critical elements in a venture creation; these properties are *intentionality* of individual to make a new venture, *resources* acquired to exploit new opportunities, *exchanges* occurring among related individuals in a new venture, and *boundaries* or necessary properties of individuals related to a business venture (Katz & Gartner, 1988). However, this model fails to explain the relationship between the four essential properties in venture creation and social capital. This model can only explain the most essential properties in new business venture creation. Literally, such model cannot be a construct to measure the social capital of individuals. The model concerns the creation of a systematic process for reliably and successfully exploiting a venture opportunity.

From a different standpoint, Coleman (1988) and Burt (2000) demonstrated two structural perspectives of social capital, namely, bonding and bridging. Coleman (1998) highlighted the bonding perspective as a value of social capital derived from strong internal social connections resulting in norms and trust under strong ties. Conversely, the bridging perspective can be explained as the external connections of individuals and their network relationships (Burt, 2000). Compared with the bonding perspective, the bridging perspective focuses on individuals' external social interactions and ties that can be exploited for the individuals' sake (Adler & Kwon, 2002; Burt, 2000). However, this model limits its mounting understanding of the psychological and cognitive effect of individuals in the relationships on

their levels of commitment to a specific interpersonal relationship. This model cannot fully reflect the dimensions included in the social capital structure.

Bourdieu (2005) placed added emphasis on a competitive advantage that can be obtained by strengthening relational networks, which can serve as critical financial and informational resources (Bourdieu, 2005). Putnam (1995) also demonstrated that social capital comes from the trust and affiliation among individuals in social relationships. Although these two models consider relational networks as an advantageous resource in a venture or business, these two models cannot reflect the significance of the long-term benefits of social capital. Bourdieu (2005) only emphasized relational networks as a resource of information. However, this relational value cannot be a dimension of social capital; it can only signify a characteristic and significance of social capital in a business venture. Putnam (1995)'s interpretation further indicated only emotional and cognitive dimensions as determinants of social capital.

Given the comparative absence of applications of the social capital concept in hospitality and tourism research, identifying and adopting an accurate model of social capital are essential for researchers (Zhao, Ritchie, & Echtner, 2011). As the hospitality and tourism industries can be characterized by their heterogeneity and combination of different segments (e.g., restaurant, travel agent, hotel, transportation, etc.), demonstrating social capital only in a unified single dimension or with certain types of relational attributes is likely impossible (Ramos-Rodríguez, Medina-Garrido, & Ruiz-Navarro, 2012; Szivas, 2001). Considering a holistic approach toward the determinants of social capital as a definition for entrepreneurs is inevitable to reflect the heterogeneity of the hospitality and tourism industries.

Nahapiet and Ghoshal (1998) viewed social capital as the sum of entrepreneurs' actual and potential resources embedded within the socially connected relationships in a network and is

derived from these relationships. From this perspective, they argued that social capital includes three dimensions, namely, structural (social interaction tie), relational (trust), and cognitive dimensions (shared values and visions) (Nahapiet & Ghoshal, 1998).

Social interaction tie (SIT) is defined as a structural dimension of social capital referring to the tendency of making interpersonal relationships and intensity of striving to become connected with individuals engaged in the same network (Burt, 1992; Nahapiet & Ghoshal, 1998). A strong interaction tie can be a foundation for sharing information, inquiring shared value, and pursuing common goals likely to benefit individuals in the same network (Liao & Welsch, 2005). Many researchers acknowledge that SIT can ignite actively engaged behavior and newly developed association among members of a network (Putman, 1995; Wasko & Faraj, 2005). By strengthening SIT, individuals in the network can widen and broaden the influence and dominance of networks in their behavior and decision making (Coleman, 1988; Huang, Lin, & Lin, 2009) and strengthen the intention of individuals to stay in their current networks (Huang, Lin, & Lin, 2009; Lin & Lu, 2011).

By obtaining a series of interpersonal relationship and deepening the relationship, people can generate relational trust (Granovetter, 1992). Relational trust captures the accessibility of informative suggestions and feedback as well as emotional support generated by other members (DiMaggio, 1992). By sharing information, experience, and knowledge within the relational network, people can acquire high relational interaction, which can develop and strengthen a sense of trust in terms of long-term relationships within the network (Hansen & Allen, 1992; Liao & Welsch, 2005). These behaviors can be a set of critical resources of social capital that can influence others' perception, attitude, behavior, and emotional dependency (Fukuyama, 1995; Kim & Aldrich, 2005).

In a social network, cognitive dimension encompasses shared value and vision explained by the common goal and socially believed norm (Cohen & Prusak, 2002). Cohen and Prusak (2002) argued that shared visions bind individuals of networks and induce cooperative actions. Cognitive dimension is acknowledged as a resource of social capital providing "shared representations, interpretations, and systems of meaning among parties" (Nahapiet & Ghoshal, 1998). Tsai and Ghoshal (1998, p. 467) noted that a shared vision "embodies the collective goals and aspirations of the members of an organization." Therefore, such vision can constitute a critical framework of social capital in that members joining the social network strive to find a common purpose and values derived from similar standpoints toward commonly discussed issues. The system used to share values, visions, meanings, and communication facilitates the behaviors of information sharing, experience exchange, and knowledge creation, allowing individuals to make new information and decisions (De Carolis & Saparito, 2006; Grant, 1996; Nonaka, 1994).

3. Research methods and analysis results

3.1. Research design

Previous entrepreneurship literature primarily focuses on different types of capital for traditional businesses. Sporadic empirical studies present quantitative evidence to understand the business behavior on newly emerging sharing economy platform from an entrepreneurship perspective. To fill the research gap, the present author develops an instrument called the scale of entrepreneurial capital (ECS) on the sharing economy platform. This scale development aims to

describe the justification of the ECS and present the validity of the properties and applications of the scale.

Hinkin, Tracey, and Enz (1997) provided the guideline for scale development. In their guideline, they highlighted the significance of valid item generation and scale purification by following seven steps. The standard includes item generation, content adequacy assessment, questionnaire administration, factor analysis, internal consistency assessment, construct validity, and replication (Hinkin et al., 1997). Based on this guideline, the present author follows three basic stages of new scale development. The first stage is to generate a measurement item pool (Churchill, 1979). Using the results of content adequacy test as basis, the initial questionnaire is modified. The items used to measure the construct in the questionnaire should be conceptually consistent and valid. The next step is scale purification, that is, to confirm validity with regard to the new measure (Hinkin et al., 1997). This step employs both exploratory factor analysis (EFA) to reduce the set of items and confirmatory factor analysis (CFA) to test the underlying construct and significance of the scale. Churchill (1979) suggested that purifying a measurement instrument should begin with the computation of the coefficient α. The underlying factor structure to the newly developed scale must also be reevaluated using CFA.

3.2. Item generation

The first step in scale development is to generate a measurement item pool (Churchill, 1979). In this step, a researcher must draw a clear concept of the construct being scaled (Chu & Murrmann, 2006). DeVellis and Dancer (1991) suggested that the ideal size of the item pool should be four times larger than the final scale or minimally 1.5 times larger than the final scale. Generating a large item pool requires using two sources, namely, the existing literature and

qualitative survey, to generate scale items. The basis of measurement scale for entrepreneurial capital in sharing economy is conceptualized based on the definition of entrepreneurship on the sharing economy platform and review of the previous literature related to entrepreneurship and sharing economy. However, given that sharing economy is a newly emerging phenomenon in the hospitality industry, previous literature bears limitations in addressing the inquiry regarding entrepreneurship on this economic platform. Grounding the basis construct requires using a qualitative approach to collect other foundational and unearthed information on entrepreneurship in sharing economy (Wong, 2008).

Given these characteristics, a cross-sectional quantitative approach utilizing a structured survey questionnaire cannot provide comprehensive understanding of entrepreneurial capital in sharing economy (Carson & Coviello, 1996; Hofer & Bygrave, 1992). Adopting a mixed method combining quantitative and qualitative approaches in a study is vital to fully understand entrepreneurship (Currall & Towler, 2003). Qualitative content analysis is used to analyze the qualitative survey data because open-ended survey questions allow respondents to describe what entrepreneurial capitals in sharing economy are essential for success (Flick, 1998).

3.2.1. Sampling and data collection

The qualitative questionnaire was distributed to students enrolled at Iowa State University. The questionnaire contains open-ended questions. The question used in the survey is "In your opinion, what types of resources are essential to be a successful entrepreneur in a sharing economy? Please discuss in detail." This question was distributed to students from the department of Apparel, Events, and Hospitality Management at Iowa State University between

April 18 and May 9, 2016. Participants were free to describe their thoughts on the resources they perceived are essential to become a successful entrepreneur on the sharing economy platform.

Using students as participants in investigations concerning basic cognitive and psychological questions is relatively common (Haynie & Shepherd, 2009; van der Vegt & van de Vliert, 2005), because student samples represent an initial step of the study to explore the psychological basis of entrepreneurship (Audia, Locke, & Smith, 2000). The student group provides higher heterogeneity in terms of perception toward entrepreneurial capital than actual entrepreneurs because students are not limited to their experiences, but extensively open regarding their career development. The first step of this research aims to figure out the novel entrepreneurial capital that represents individual's belief and perception toward the value of the capitals that they actually own and/or believe they can access in their business startup. Considering this objective, students are a proper sample for exploring the initial characteristics of entrepreneurial capitals without any bias and/or constraints with regard to an entrepreneurial venture in a new business format.

Given that the qualitative approach embracing the underlying structure of entrepreneurial capitals on the sharing economy platform focuses on the psychological procedural thinking of resources related to entrepreneurship for sharing economy, the present researcher does not have to constrain potential generalizability by using contextually grounded and narrowly focused samples (e.g., actual entrepreneurs) considerably biased toward their current positions. This study can assert that a sample of entrepreneurs is similarly constraining to the empirical investigation of the psychological thinking process of capitals related to entrepreneurship without any biased perception or attitude (Dipboye & Flanagan, 1979). The heterogeneity of the

student sample can significantly contribute to the generalizability of the findings for research relevant to the underlying structure of entrepreneurial capitals.

Students striving to set their career path can represent different perspectives toward entrepreneurial capitals. Given that many of these students have neither started their entrepreneurial ventures nor closely examined entrepreneurship as their future career path (Shinnar, Giacomin, & Janssen, 2012), using students as study sample enables a researcher to assess both the attitudes of aspiring entrepreneurs and those students who may not want to become entrepreneurs. Student sample also is appropriate for examining the perceived significance of one or more of entrepreneurship-related capital because students face an immediate career choice (Krueger, Reilly, & Carsrud, 2000) and expect low barriers of business ownership due to the increased infusion of entrepreneurship across educational curricula (Hmieleski & Corbett, 2006).

3.2.2. Content analysis

Qualitative content analysis is used to analyze the open-ended survey data because this analysis signifies the importance of themes over frequency of words and quantified categories (Flick, 1998).

Content analysis includes two routes of methods, namely, inductive and deductive (Elo & Kyngas, 2008). Based on the purpose of the study, either one of these two methods can be chosen. Inductive method can be used to formulate new categories regarding target phenomenon out of the materials and/or data in studies in which no significant previous background exists (Mayring, 2014). The aim is to arrive at directly summarizing categories from the actual material (Krippendorff, 1980). In inductive category formation, keeping such content-analytical units

open ended can be useful to collect other diverse opinions toward the phenomenon (Hsieh & Shannon, 2005; Strauss & Corbin, 1990). In the inductive content analysis method, coding is frequently conducted while the researcher is immersed in it (Elo & Kyngas, 2008). The process aims at a true description without bias owing to the preconceptions of the researcher and an objective understanding of the material. Inductive category formation is a central process within the approach of grounded theory (Strauss, 1987; Strauss & Corbin, 1990), which is called "open coding" in this context.

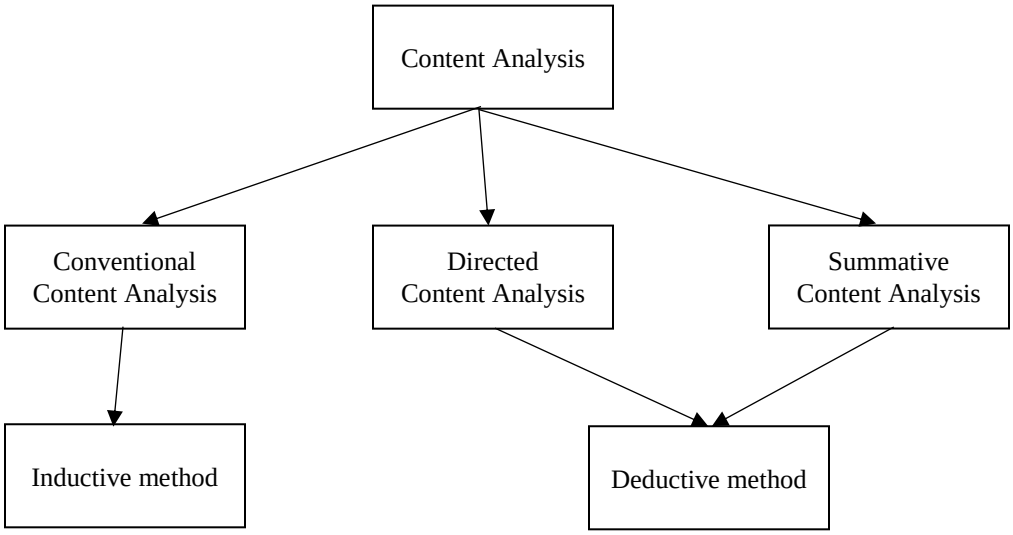


Figure 2.1.
Three steps and methods of content analysis (Elo & Kyngas, 2008; Hsieh & Shannon, 2005)

By contrast, the deductive method can be employed to studies based on previous knowledge and existing theories (Elo & Kyngas, 2008). The main purpose is to deductively crystallize categories of the contents of data from theory and then assign parts of the text to each category (Mayring, 2014). The exact definition of categories is crucial for deductive category assignment. The procedure is deductive because categories applied to the coding procedure are

structured before coding materials. The categories are deduced from theories, previous studies, and relevant research (Mayring, 2014). The deductive method can be a proper approach for the present research that can be supported by rich existing literature.

Hsieh and Shannon (2005) categorized content analysis into three distinct approaches, namely, conventional, directed, or summative approaches. Although these three approaches vary in terms of coding schemes and category systems, they can be used to interpret qualitative content for determining the underlying structures of concepts under investigation (Hsieh & Shannon, 2005).

The first approach is conventional content analysis. Conventional content analysis is a proper approach for a research purposively aiming to describe a phenomenon and develop category systems from the data collected (Hsieh & Shannon, 2005). Once data are collected, contents are coded and categorized into several groups. The second approach is directed content analysis. Directed content analysis can be employed to the present research that is conjunct with existing theories and frameworks (Hsieh & Shannon, 2005). Considering the nature of this approach, directed content analysis uses more structured and concept-targeted questions than conventional content analysis does (Hsieh & Shannon, 2005). In this approach, coding should be conducted on the basis of previously developed and tested criteria, and categories should be determined using the pre-selected category system. However, high dependency on existing theories and category systems frequently fail to reveal the underlying structures that are yet to be recognized (Hsieh & Shannon, 2005). The third approach is summative content analysis. This approach focuses on quantifying the frequency of specific words used in manuscripts or textbooks (Hsieh & Shannon, 2005). The researcher should test whether any discrepancies may

occur with a particular frequency in the case of certain categories; discrepancies can be eliminated by clarifying definitions (Hsieh & Shannon, 2005; Mayring, 2014).

Given the research purpose of developing the measurement scale of entrepreneurial capitals in sharing economy, which is a newly emerging industry platform, inductive method fits well to the research purpose. Conventional content analysis approach is also employed to fulfill the aim of inductive content analysis. As this concept has not been clearly tested and/or explored before, open-ended questions without any pre-conceived answers benefits the researcher to comprehensively understand the potential underlying structures of entrepreneurial capitals on the sharing economy platform.

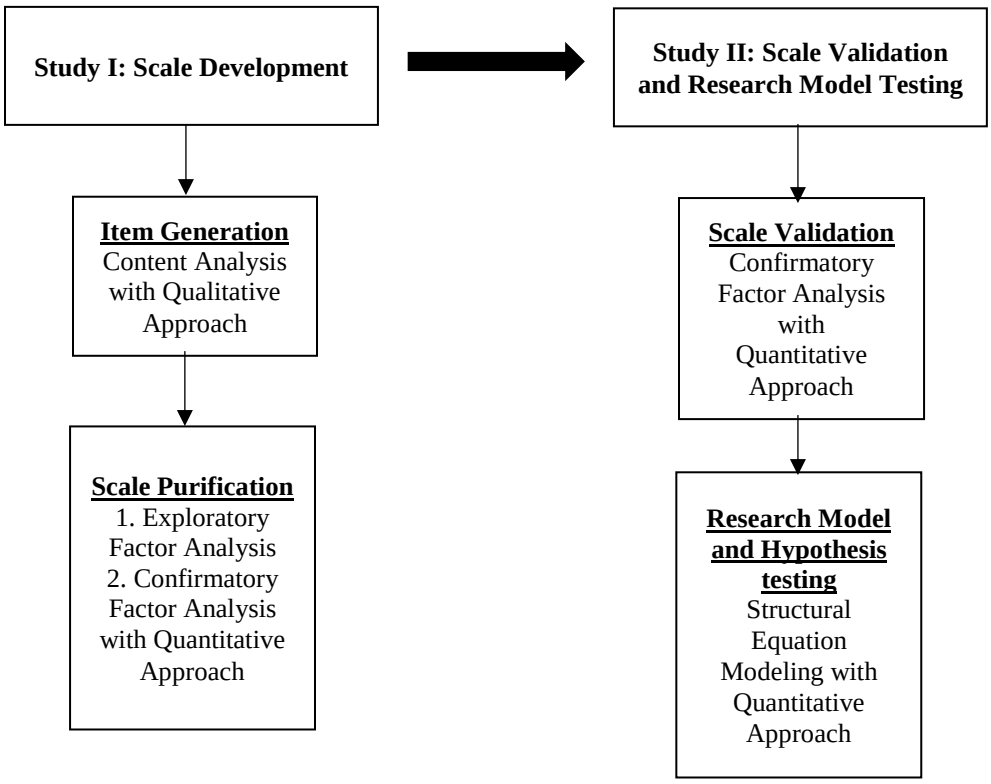


Figure 2.2.
Research procedure

3.2.3. Data analysis

Coding was conducted using QSR's NVivo software package, which is a widely-accepted computer assisted qualitative data analysis software that allows a detailed analysis of interview transcripts (Malhotra, 2008). Conventional content analysis under the inductive method was employed, and, thus, coding was performed while the researcher is immersed in the data, using the research context and purpose as basis (Elo & Kyngas, 2008). Qualitative data analysis is previously characterized as a labor intensive and time-consuming job (Wong 2008). With the use of computer software, qualitative data analysis is now an efficient and precise means to identify and code data, although coding and interpretation should be conducted by the researcher (Wong, 2008). With NVivo software, the analysis was mostly based on the relation of one node to the others. General qualitative trends in the data were noted and quantitative information was analyzed using the software. Texts associated with each code were examined, reread, and crosschecked by a group of reviewers to identify the key themes in data. The group consists of two faculty members in hospitality management, one practitioner in hospitality industry, one current Airbnb host, and three Ph.D. students majoring in hospitality management.

3.2.4. Results

This study examined different types of capital that are perceived essential for entrepreneurship on the sharing economy platform. By analyzing 59 qualitative interview type survey questionnaires with open-ended questions, this study found 25 nodes covering 442 references (see Table 2.1). As explored in the literature review section and based on the conventional content analysis procedure, the researcher counted all nodes that are directly related to any one of financial, intellectual, and social capitals. Finally, the researcher crosschecked all

the nodes and the interpretation of each node with 402 references to categorize them into several groups of capital.

A total of 66 references were coded as a sub-dimension of financial capital by five different nodes. Business cost, funds and finance, investment, initial capital, and other types of monetary issues were coded in financial capital. A total of 154 references were explained using six different nodes that represent IC. These nodes were creativity, experience, new idea, knowledge, motivation, and skill. Among them, knowledge was interpreted to be a second order that includes two different sub-categories based on the characteristics of knowledge. Domain knowledge is directly related to business operation, including products, customers, and suppliers, whereas formal knowledge is indirectly related to the business operations but is relevant to the industry environment and other knowledge (Gimeno et al., 1997).

Table 2.1.
Type of capital and number of references within nodes

Type of Capital	Number of Nodes	Number of References
Financial Capital	5	66
Human Capital	2	40
Intellectual Capital	8	154
Social Capital	6	182

A total of 182 references were coded using six nodes that imply the social capital of entrepreneurial business on the sharing economy platform. Social capital included social relationship, marketing activity, community and society, trustworthiness, shared value, and word-of-mouth.

Table 2.2.
Dimensions of entrepreneurship capital and example references

Type of capital	Examples drawn from the answers in the qualitative survey
Financial Capital	Financial resources are vital in any entrepreneurship position. Without money, running a business is difficult. Monetary funds are necessary to keep up and provide necessary means when an entrepreneur is on the sharing economy platform.
	For both Uber and Airbnb, financial resources are probably the most important factor. For example, Uber requires a 2009 or new model car to become a driver. Airbnb hosts need a real estate that is sufficiently large to give guests space while maintaining a homey feel. Both should possess adequate financial resources.
Human Capital	Having an open line of communication and reliable means of communication ensures business success. I think that some forms of security measures should be taken when involved in sharing economy. This step is important because individuals are often working directly with people that they do not know and have never met.
	To be a successful entrepreneur in sharing economy, an individual should be open, honest, and good. The individual must possess a good moral compass.
Intellectual Capital	Knowing the financial aspects of the business as well as the industry is crucial so that an individual does not run into problem throughout the venture.
	An entrepreneur must have great human resources, accounting, and social skills. Human resources take care of their employees. If there are no employees, then the entrepreneur must know his/her rules and rights. Accounting is important because each entrepreneur must know how to manage money. If he/she cannot manage the assets. then he/she cannot achieve a successful business. Finally, social skills are important because an entrepreneur should be personable to succeed. Guests remember their experience, and by being personable, an entrepreneur can ensure a great experience.
Social Capital	Networking and knowing many people can bring success to a business, providing an entrepreneur financial stability in the economy. Both are crucial for guests' experiences and stays to be good, making them want to come back or tell their friends about the entrepreneur venue.
	An entrepreneur can use the Internet and word-of-mouth for marketing/advertising. Through these means, the entrepreneur can save money and the environment. The more people the entrepreneur knows, the easier it is to run a business on the sharing economy platform.

Another capital dimension has become apparent with 40 references using two nodes, namely, personal characteristics (personality) and internal relationship (relationship with co-worker and employees) in the conventional content analysis. These two nodes focused on the personalities of individual entrepreneurs and their relationships with co-workers, co-owners, and other internal customers. As these relationships are highly restricted to internal relationship, which is limited to the people inside of an enterprise, these should be interpreted differently when considering the relationship with customers and other entities outside of the enterprise. Considering that the two nodes are related to personal factors, this capital dimension is named human capital.

As those two nodes seem significant in terms of entrepreneurship, the researcher decided to consider these nodes in scale purification. In addition, although the researcher interpreted and categorized them into four main types of entrepreneurial capitals that are widely studied in the previous literature, scale purification determines how many factors are optimal for this phenomenon.

3.3. Scale purification

To generate a sufficient number of items, two sources, namely, the existing literature and qualitative survey, were used to produce the scale items. Based on the qualitative analysis results, the present author added three items that were tested and found important in the previous literature. This process enabled the researcher to maximize many questions to capture the objective meaning of the phenomenon and the underlying dimensions of the subject (entrepreneurial capitals in sharing economy). These items were adapted from the studies of Lin and Lu (2011), Flora (2004), Becker (1994), and Martin, McNally, and Kay (2013) with minor

revisions. Based on the 20 items generated from the qualitative analysis, governmental support in a form of tax incentives (financial capital) (Flora, 2004; McGehee et al., 2010), social interaction with other entrepreneurs (social capital) (Lin & Lu, 2011), and education and job training as well as past experience (human capital) (Becker, 1994; Martin, McNally, & Kay, 2013) were added.

A total of 24 scale items were generated from the two sources of information regarding entrepreneurial capital in sharing economy. These initial items were incorporated into a survey questionnaire for scale purification. Scale purification confirms whether the newly developed scale measures what is intended to be measured in terms of psychometric properties (Hinkin, Tracey, & Enz, 1997). Scale purification at this stage enables the present researcher to reduce the number of items originally generated.

3.3.1. Sampling and data collection

The survey questionnaire was distributed to students in two different locations: (1) a major university in mid-western US and (2) a university in New York. This approach was designed to include the different perceptions of people toward sharing economy and the experience of people living in different regional areas regarding sharing economy. Based on this dual-route survey approach, students of the two schools were randomly selected. For the convenience of both the researcher and participants, an online survey using Qualtrics was employed. Online survey offers merits such as low survey cost, availability and flexibility of respondents, and automated data entry and checking (Stopher, Collins, & Bullock, 2004).

Participants were invited to this online survey between November 21 and December 9, 2016. Out of 168 responses, 150 usable responses (response rate = 82%) were collected and used

to analyze the reliability and validity of scales developed. The respondents were asked to imagine a scenario:

Sharing economy is a hybrid market model which refers to a peer-to-peer-based sharing of access to goods and services, such as Uber, Lyft, ZipCar, and Snapgoods. Among them, Airbnb is an innovative platform of sharing economy in the hospitality industry. It allows owners to rent out their real estates while they are not using it. Being a host (e.g., rent your real estates to guests) is a new type of "entrepreneurship" in this economic trend. To be an entrepreneur on the sharing economy platform, we are interested in your opinion regarding the essential resources in entrepreneurship. The following questions are related to different types of resources that are associated with the entrepreneurial venture. Please answer each question correctly.

A seven-point Likert-type scale ranging from "Not at all important" (1) to "Extremely important" (7) was presented for each item. Participants were also required to answer the questions regarding basic demographic information, such as age, gender, education, and employment.

3.3.2. Data analysis

A two-step approach was employed to secure the reliability and validity of the newly developed scale of entrepreneurial capitals in sharing economy. First, EFA was employed to examine the intercorrelation that exists among items to discover the latent constructs responsible for the covariation that manifests among variables. EFA can reduce the total number of items to discrete dimensions that can be summed or aggregated to be used as input for further

multivariate analysis (DeVellis, 2003; Spector, 1992). Such analysis enables the present author to refine the number of items on a scale for scale development (DeVellis, 2003). To satisfy the purpose of scale development, EFA was performed to describe and identify the number of latent constructs (factors), explore the possible underlying factor structure of a set of measured variables, determine the number of latent constructs underlying a set of items (variables), and define the content or meaning of factors. Churchill (1979) suggested that scale purification should begin by computing the coefficient α. The Kaiser–Meyer–Olkin (KMO) test and Bartlett's test of sphericity were used to ensure that the data included inherent sufficient correlations to perform EFA. The KMO test measures the shared variance in the items (Beavers et al., 2013). The KMO test suggests that correlations should possess a value larger than 0.8 to be meritorious and 0.6 to be mediocre. Bartlett's test provides evidence that the observed correlation matrix is statistically different from a singular matrix, confirming that linear combinations exist (Beavers et al., 2013). The null hypothesis of Bartlett's test states that the observed correlation matrix is equal to the identity matrix, suggesting that the observed matrix is unfactorable (Pett et al., 2003).

Reliability and validity are the major criteria for evaluating research instruments. Reliability coefficients of the newly developed scale are calculated to examine the internal consistency of the factors. Validity is the extent to which the items accurately measure what they are supposed to measure (Hair et al., 1998). Although necessary, high reliability is not a sufficient condition for a valid scale. The scale should also satisfy other conceptual and empirical criteria to be considered a valid scale. The most basic type of validity is face or content validity (Zikmund, 1997), such as agreement among professionals that a scale is measuring what it is supposed to measure. To meet this requirement, researchers and experts in hospitality

management and entrepreneurship were asked to review the items and their matching dimensions.

Second, to further assess the factor structure of the scale, CFA was performed on the sample. CFA with the maximum likelihood estimation in Statistical Package for the Social Sciences (SPSS) version 20.0 was utilized to test the structure of factors of the newly developed scale of entrepreneurial capitals on the sharing economy platform. This study postulated a priori measurement model linking observed variables with latent factors and then tested the model for its ability to fit the data using CFA. The fit of the measurement model for the data was based on the $\chi 2$ statistic, Tucker–Lewis index (TLI), comparative fit index (CFI), and root mean square error of approximation (RMSEA). From the initial model with only one factor to a multi-dimensional structure with two or more factors, a series of model comparison was conducted to find the best fitting model for the data. The modifications were determined based on the interpretation of the findings from EFA and improved model fit.

3.3.3. Results

3.3.3.1. EFA results

To validate the innovation capability scale and its structure, a series of EFA and CFA were undertaken (Bearden, Hardesty, & Rose, 2001). SPSS version 21.0 was used to undertake the preliminary analysis and the initial EFA. For EFA, principal component analysis (PCA) was used to find the best way of combining variables such that most of the variance of the observed variables is retained. PCA transformation is a common and well-studied data analysis technique that aims to identify linear trends and simple patterns in a group of samples (Xanthopoulos,

Pardalos, & Trafalis, 2013). As the purpose of this analysis is to explore data for reducing the number of components, the PCA extraction method was initially performed on the sample by using varimax rotation. At the first attempt, the KMO index value was 0.901, and the Bartlett's test of sphericity was significant ($p < 0.001$), thus justifying the use of factor analysis. The first factor analysis resulted in a five-factor solution accounted 61.92% of explained variance. Considering the small sample size, items were deleted once they loaded equally and heavily onto more than one factor, and their loadings were smaller than 0.50 to achieve a more meaningful solution (Hair et al., 1998). Each time items was removed from the analysis; the factor analysis was re-run and coefficient α was re-computed until a satisfactory result was achieved. After a series of deletions that reduced the number of items to 16, a clear four-factor structure emerged.

One of the most commonly used eigenvalue criteria is the Kaiser Criterion, which states that factors should be retained if their eigenvalues are greater than or equal to 1 (Costello & Osborne, 2005). The rationale behind the Kaiser Criterion is that a component having an eigenvalue greater than 1 accounts for more variance than a single item does, thus suggesting a merit for combining these items into a factor or component. Based on this criterion, the four factors with eigenvalues greater than 1 were extracted, namely, financial capital (FC), social capital (SC), intellectual capital (IC), and human capital (HC). These four-factor solutions accounted for 65.88% of the explained variance with financial capital dimension accounting for 37.13%, social capital dimension accounting for 13.93%, intellectual capital dimension accounting for 8.37%, and human capital dimension accounting for 6.45%. The literature varies on how much variance should be explained before the number of factors becomes sufficient. Majority of previous literature suggest that 75% to 90% of the variance should be accounted for (Garson, 2010; Pett et al., 2003); however, some studies indicate that as minimal as 50% of the

variance explained is acceptable. All items were loaded onto their unique corresponding dimensions with a factor loading value of greater than 0.60. Cronbach's α of each dimension was greater than 0.68, which was greater than the cutoff value. Based on the results of factor analysis, an entrepreneurial capital scale was satisfactorily developed.

Table 2.3.
EFA results with standardized factor loadings

Attribute	Factor 1 (FC)	Factor 2 (SC)	Factor 3 (IC)	Factor 4 (HC)
Financial Capital (FC)				
On the sharing economy platform, the financial plan for business startup costs (purchasing house, car, and/or tool) is important to a sharing product/service provider.	0.758			
On the sharing economy platform, funds, loans, and credit are important to a sharing product/service provider.	0.863			
On the sharing economy platform, investment opportunities available are important to a sharing product/service provider.	0.690			
On the sharing economy platform, cash and other monetary resources available are important to a sharing product/service provider.	0.686			
On the sharing economy platform, governmental support (e.g., tax incentives) is important to a sharing product/service provider.	0.627			
Social Capital (SC)				
On the sharing economy platform, a social relationship is important to a sharing product/service provider.		0.698		
On the sharing economy platform, a social interaction with peers is important to a sharing product/service provider.		0.758		
On the sharing economy platform, marketing activities are important to a sharing product/service provider.		0.694		
On the sharing economy platform, trustworthiness of products and services is important to a sharing product/service provider.		0.668		
On the sharing economy platform, word-of-mouth of customers is important to a sharing product/service provider.		0.698		

Table 2.3. continued

Intellectual Capital (IC)				
On the sharing economy platform, creativity is important to a sharing product/service provider.			0.656	
On the sharing economy platform, knowledge regarding business operation (e.g., customers, products, and suppliers) is important to a sharing product/service provider.			0.675	
On the sharing economy platform, knowledge regarding business environment is important to a sharing product/service provider.			0.747	
On the sharing economy platform, motivation to explore a new business is important to a sharing product/service provider.			0.693	
Human Capital (HC)				
On the sharing economy platform, education level is important to a sharing product/service provider.				0.888
On the sharing economy platform, job training is important to a sharing product/service provider.				0.916
On the sharing economy platform, past entrepreneurship experience is important to a sharing product/service provider.				0.801
Cronbach's α	0.864	0.829	0.788	0.682
Variance explained (%)	37.13	13.93	8.37	6.45
Composite reliability	0.849	0.830	0.810	0.903
Average variance extracted	0.532	0.495	0.516	0.756
Eigenvalue	6.313	2.369	1.422	1.099
KMO measure of sampling adequacy	0.868			
Bartlett's test of sphericity (significance level)	< 0.001			

3.3.3.2. CFA results

The discriminant validity was tested using two different approaches, namely, chi-square difference test and average variance extracted (AVE). First, Anderson and Gerbing's (1988) chi-square difference test was used to test the discriminant validity among the four latent factors of the ECS. By constraining the estimated correlation parameters between two constructs among all the potential pairs, the constrained and unconstrained models can be compared. In the unconstrained model (free model), the correlation parameter was freely calculated (Anderson & Gerbing, 1988), whereas the correlation between two constructs was set at 1.00 in the constrained model (fixed model). A significantly low χ^2 value for the unconstrained model suggested that the constructs were not perfectly correlated, supporting their discriminant validity (Anderson & Gerbing, 1988). Table 2.4 indicates the results of the χ^2 differences tests for all the possible pairs of latent factors. As all $\chi 2$ differences were significant at $p < 0.01$, all constructs were concluded to possess discriminant validity, implying that all constructs in the model were distinct. In addition, the AVE of each construct exceeded any squared correlations between two variables, supporting the discriminant validity of this scale (see Table 2.5).

Convergent validity for a measurement model is present if all observable indicators load significantly onto their respective latent factors. In this study, all the observable indicators loaded significantly onto their latent variables (see Table 2.3). Therefore, CFA results supported the convergent validity of all constructs.

Table 2.4.
Discriminant validity tests

	$\chi 2$	df	$\Delta\chi 2$	Δdf	Sig.
Unconstrained model	194.551	113			
FC - SC	256.140	116	61.589	3	< 0.001
FC - IC	281.724	116	87.173	3	< 0.001
FC - HC	235.668	116	41.117	3	< 0.001
SC - IC	245.793	116	51.242	3	< 0.001
SC - HC	227.592	116	33.041	3	< 0.001
IC - HC	233.984	116	39.433	3	< 0.001

FC = financial capital; SC = social capital; IC = intellectual capital; HC = human capital

Table 2.5.
Squared correlations matrix and AVE

Measure	IC	SC	FC	HC
IC	1			
SC	0.487	1		
FC	0.502	0.416	1	
HC	0.176	0.176	0.168	1
AVE	0.516	0.495	0.532	0.756

FC = financial capital; SC = social capital; IC = intellectual capital; HC = human capital; AVE = average variance extracted

The last part of the analysis was the comparison between the final model, which was derived from CFA, and alternative models. A series of competing factor models was evaluated to assess the quality of the final model. The estimated alternative models included (1) a null model, (2) a one-factor model, (3) a three-factor model combining factors 3 (IC) and 4 (HC), (4) a four-factor model in which the factors were uncorrelated, (5) a four-factor model in which the factors were correlated, and (6) a second-order factor with four sub-constructs. Sequential chi-square difference tests were used to examine significant

differences in the estimated construct covariance explained by the two models to determine the best fitting model (Hair et al., 1998; Jöreskog & Sörbom, 1996).

Table 2.6.
CFA results for the competing models

Model	$\chi2$	df	$\Delta\chi2$	Δdf	Normed $\chi2$	TLI	CFI	RMSEA
Null model	1182.156	153			7.727	0	0	0.21
One-factor model	374.418	119	807.738	34	3.146	0.681	0.752	0.119
Three-factor model	233.984	116	948.172	37	2.017	0.849	0.885	0.082
Four-factor uncorrelated model	371.959	119	810.197	34	3.126	0.684	0.754	0.118
Four-factor correlated model	194.551	113	987.605	40	1.722	0.893	0.921	0.069
One second-order factor and four sub-constructs	195.11	115	987.046	38	1.697	0.896	0.922	0.068

$\chi2$ = chi-square; df = degrees of freedom; $\Delta\chi2$ = chi-square difference statistic; Δdf = difference in degrees of freedom; Normed $\chi2$ = $\chi2$/df; TLI = Tucker–Lewis index; CFI = comparative fit index; RMSEA = root mean square error of approximation.

* $p<0.05$

Table 2.6 shows the fit statistics for the ECS on the sharing economy platform. The TLI (0.896), CFI (0.922), and RMSEA (0.068) were consistent with the established criteria for the sample analysis. Consequently, the normed chi-square statistic ($\chi2$/df) was examined. Normed chi-square lessens the dependency of $\chi2$ on sample size. In this case, the normed chi-square statistic ($\chi2$/df) was 1.697, indicating that the normed chi-square statistic ($\chi2$/df) meets the criterion of less than 3 (Bollen, 1989; Kline, 1998). The following conclusions are drawn: (1) the second-order model is a significantly better solution than the four-factor model and other competing models, and (2) the second-order factor model provides a better approximation to the data than the other models tested.

4. Conclusion

By employing an integrated multi-method approach during scale development, the present study empirically validated the ECS on the sharing economy platform. This study was originally designed to identify the characteristics of entrepreneurship in sharing economy and develop a new scale of entrepreneurial capital on the sharing economy platform by reflecting those characteristics. This study successfully devised four factors with 17 measurement items reflecting the nature of entrepreneurship in sharing economy. The four dimensions include financial, social, intellectual, and human capital. The multi-dimensional concept of entrepreneurial capital in sharing economy was adopted to precisely measure the entrepreneurial capital and the second-order factor representing the initial capital structure essential for entrepreneurial venture on the sharing economy platform. To fulfill the requirements of scale development, the qualitative approach was initially adopted to reflect fundamental insights into and perception toward entrepreneurial capitals.

First, financial capital includes five specific measurement items. Previous measurement items of financial capital in general business startups include (1) loans and credit, (2) investment opportunities, (3) the tax structure, (4) tax incentives, and (5) grants to support entrepreneurial ventures (Flora, 2004; McGehee et al., 2010). When compared with previous measurement items, the results of this study indicated two unique findings regarding the financial capital on the sharing economy platform, that is, financial plan and cash and other monetary resources. First, financial plan can pertain to an ability to precisely anticipate the total cost of a new business startup in sharing economy and create a road map of the financial assets for the venture. On the sharing economy platform, individual entrepreneurs must identify the best possible resources they can share on the market to maximize

compensation obtained from resource exchange. Owning a house or renting it to become an entrepreneur in Airbnb should be decided based on a financial plan and anticipated financial stability.

Second, cash and other monetary resources are equally important to entrepreneurs on the sharing economy platform. Peer-to-peer business platforms secure the flexibility of business owners to exchange their resources. However, as a newly emerged business platform, predicting the profitability and consistency of a business is difficult. For example, Airbnb hosts can exchange the house when a high demand exists in the market. However, under a low demand in the market, sustaining financial stability in Airbnb is difficult for micro-entrepreneurs. In this risky situation, cash and other monetary resources can be assets that bring financial sustainability on the sharing economy platform.

Apart from the two items explained above, the other measurement items are similar to the previous measurement items of financial capital of McGehee et al. (2010) and Flora (2004). Funds, loans, and credit and investment opportunities can be means to achieve the plan. If an individual entrepreneur can access these financial opportunities to finance a vehicle for Uber, then he/she may secure better cash flow at the initial stage of the business venture than purchasing one. In addition, legal issues related to the sharing economy platform exist, such as legal disputes between Airbnb and lodging industry firms. This vulnerability can be cleared with government support. Tax and other governmental support as a form of tax incentives can also secure the financial sustainability of micro-entrepreneurs on the sharing economy platform.

Social capital has five measurement items embracing social relationship, social interaction with other entrepreneurs, and other marketing perspectives. Among these items,

marketing perspectives, including marketing activities and word-of-mouth of customers, are distinctive items in this measurement when compared with previously tested measurement items (Davidsson & Honig, 2003; Lin & Lu, 2011). Davidsson and Honig (2003) utilized the items, including family business, social encouragement, friends and neighbors, members of the startup team, contacts with an assistant agency, and marriage. In addition, Lin and Lu (2011) applied three sub-constructs of social capital embracing social interaction tie, shared vision and values, and trust and trustworthiness. Based on the comparison, these results showed that marketing activities and word-of-mouth of customers were unique items in measuring entrepreneurs' social capital on the sharing economy platform.

Marketing activities and word-of-mouth of customers are directly related to the characteristics of the new business platform. A host of Airbnb cannot create a TV commercial broadcasting and/or provide print materials for promoting their properties through mass media, but they can target specific customers who are planning and willing to visit through social media and/or the Airbnb website and deliver thorough and detailed promotional information and marketing materials. Based on an experience marketing perspective (e.g., Atwal & Williams, 2009; Tynan & McKechnie, 2009; Same & Larimo, 2012), customers satisfied with their previous visit can distribute positive word-of-mouth through their social media accounts and review board on the Airbnb website. The star rating on the Airbnb website accompanied with detailed reviews can provide new customers with reliable clues.

Beyond the aforementioned distinction, this study confirmed the significance of social relationships of entrepreneurs and interaction with peers in their business startup on the sharing economy platform. First, social relationship of entrepreneurs is important

considering that the sharing economy platform is designed and developed based on social relationship. Individuals can share their excessive resources with others to obtain compensation. In this transaction, personal relationship with others and social relationship play a significant role in creating connections with people who can be future customers. Uber drivers have their customer pool, and they can establish a close relationship with their customers and make them patrons. Airbnb hosts also promote their place to those who are in a same community and/or social media so that those who know the hosts can easily access the property and host details. This approach is significant in terms of trustworthiness toward the products (e.g., house of Airbnb host and car of Uber driver) of entrepreneurs on the sharing economy platform. Interaction with other entrepreneurs can provide potential entrepreneurs with specific guidelines on how to setup a business venture and what process to go through to be a host at Airbnb and/or a driver at Lyft. Potential entrepreneurs can easily learn the know-how from those who are in the same status. This interaction can deliver different types of knowledge and insights regarding the sharing economy platform so that individuals can practically apply the knowledge gained to their business venture.

Third, intellectual capital embraces a total of four items that reflect invisible assets, namely, creativity, knowledge regarding operation and business environment, and intrinsic motivation, that can be utilized to start a business. This finding clearly reflects the findings of previous literatures. Puhakka (2010) demonstrated the measurement model of intellectual capital using domain and formal knowledge. Knowledge regarding business operation, such as customers, products, and suppliers could be a form of domain knowledge. Knowledge regarding business environment in this result corresponds with a formal knowledge. In addition, Kivikko (1977) highlighted creativity as an important facet of the intellectual

capital of entrepreneurs. On the sharing economy platform, individual entrepreneurs should identify what to share with others for their compensation. In this attempt, creative thinking can widen business options. Car sharing (Zipcar, Uber, and Lyft), house sharing (Airbnb), music streaming (Spotify), and tool sharing (SnapGoods) are developed out of creativity with regard to sharing underused resources. This creativity generates new economy platforms and business transactions. Therefore, prospective entrepreneurs should be creative in screening possible products and/or services to share, using their knowledge regarding markets, customers who prefer sharing than purchasing, products/services, and business platforms as basis. Technological innovations (ease of access to the platform) and flexible supply (easiness of market entry) on the sharing economy platform (e.g., Zervas, Proserpio, & Byers, 2016) signify motivation to explore this newly emerging business platform as career, which is identical to intrinsic motivation in Kuratko et al. (1997).

Fourth, human capital emerged during the scale development. Originally, human capital theory indicates that individuals with more or higher quality of human capital, i.e., skills, knowledge and expertise developed through education and personal experience, achieve higher performance (Barney, 1991). Human capital, defined as the level of skills and abilities and developed through a formal education and training as well as work-related experiences, is an important source of competitive advantage (Coleman, 1988; Gimeno et al., 1997; Zhao et al., 2011). Entrepreneurship research shows a positive relationship between education and business startups (Bates, 1990; Davidsson & Honig, 2003) in the discovery and exploitation of opportunities (Davidsson & Honig, 2003; De Clercq & Arenius, 2006; Zhao et al., 2011). In addition, previous studies (e.g., Blanchflower & Oswald, 1998;

Pennings et al., 1998; Bosma et al., 2004) find that investments in human capital improve entrepreneurial performance.

On the sharing economy platform, a level of understanding on new business platforms and characteristics of sharing economy come from extensive background knowledge regarding marketing, business, entrepreneurship, and other relevant topics. Such education and training, including individuals' past entrepreneurial experience, can be transformed to human capitals so that entrepreneurs on the sharing economy platform can utilize their knowledge in discovering products/services to share and exploit opportunities earlier than others.

CHAPTER 3

STUDY II:

EXTENDING THE STRUCTURAL MODEL OF EI WITH ECS ON THE SHARING ECONOMY PLATFORM — RESOURCE-BASED VIEW APPROACH

1. Overview of study II

EI has long been studied in different approaches. Traditionally, intention was predicted using Fishbein–Ajzen (1975) framework of intention, that is, the theory of planned behavior (TPB) (Ajzen, 1989; Ajzen & Fishbein, 1980). By employing TPB, some researchers design a model to predict individual's intention to initiate entrepreneurial venture based on attitudes toward entrepreneurship, subjective norm, and perceived feasibility (e.g., Krueger et al., 2000; Krueger & Brazeal, 1994; Shinnar et al., 2012). However, this model focuses on internal factors that tend to influence their behaviors. This model also fails to include the significance and pattern of volitional behavior in decision making.

The SEE model embraces the formation of EI. This model focuses on the individual's perception toward entrepreneurship. This model can be distinguished by individuals' overall evaluation of their capability (PF) as future entrepreneurs and the attractiveness of an entrepreneurial venture (PD) as their career development in the future. This model also includes the disposition of individuals to make any volitional behavior (PA) (Shapero & Sokol, 1982). However, this model has a crucial flaw with regard to the rationale of individuals' evaluation. As this model fails to include any initial conditions of individuals, interpreting why they have these perceptions toward entrepreneurship is impossible.

Especially on the sharing economy platform, initial capitals are critical momentum and influencer when individuals decidE whether to share their excessive resources. However, neither SEE nor TPB includes individuals' belief on and overall appraisal of the value of entrepreneurial capital on the sharing economy platform. This study aims to fill this research gap.

The main purpose of study II is to identify the holistic process of EI formation on the sharing economy platform. By filling the gap identified from the previous model, a holistic model should be developed to overarch the context of EI formation. To reach this goal, this study specifically aims to develop a holistic structural model embracing the initial entrepreneurial capital and individuals' perceived feasibility and perceived desirability on the sharing economy platform and propensity to act. Using the SEE model as basis, this study develops a holistic model that includes various initial capitals (e.g., social, intellectual, human, and financial capital). These capitals create an advanced EI formation model geared toward a comprehensive understanding of how to generate and maximize EI and how to manage capitals related to entrepreneurship ventures.

This chapter includes the four following parts: (1) literature review identifying the needs of the new model and justification of developing it, (2) research methods validating the research design and statistical procedure, (3) results from the statistical analysis, and (4) conclusion conveying in-depth interpretation of the results on the sharing economy platform.

2. Literature review

2.1. Entrepreneurial intention

The entrepreneurship literature has made significant efforts to explain how and why new entrepreneurial ventures are initiated and, as a result, gave valuable theoretical and empirical contributions to the understanding of EI formation. Exploiting one's entrepreneurial opportunities can be initiated from careful planning and evaluation considering the status of individuals; thus, entrepreneurship stems from planned behavior and is consequently applicable for intention models (Bird, 1988; Krueger, 1993). An entrepreneurial venture in sharing economy is similarly defined as opportunity seeking and exploitation. Thus, the general review of EI can further elaborate the fundamental framework of intention formation.

EI is vital in understanding entrepreneurship as it is the first step in discovering, creating, and exploiting opportunities (Gartner et al., 1994). EI refers to the intention of an individual to start a new business (Krueger, 2009). Since the late 1980s, many researchers have addressed the concept of EI as intentional and planned behavior as an initial step in operating a business (e.g., Bird, 1988; Krueger, Reilly, & Carsrud, 2000). The widely acknowledged theoretical framework in this intention–behavior research (Schlaegel & Koenig, 2012) is the TPB, which conceptualizes the importance of intention as a direct antecedent of actual behavior (Ajzen, 1991, 2011).

In the TPB, behavioral intention, which refers to the likelihood of deeds based on the propensity of acting as they intend to, is an important factor for predicting actual behavior (Fishbein & Ajzen, 1975). Intentions represent the degree of commitment toward future target behaviors. Intentions robustly explain and predict that behavior (Ajzen, 1987; Ajzen &

Fishbein, 1980). In this framework, attitude toward a behavior, subjective norm, and perceived behavioral control are assumed to determine behavioral intention and that each of these determinants provides the motivational foundation for intention formation. Bagozzi (1992) further argued that the TPB does not describe the motivational process and how these predictors act in intention formation because the TPB does not incorporate an explicit motivational component.

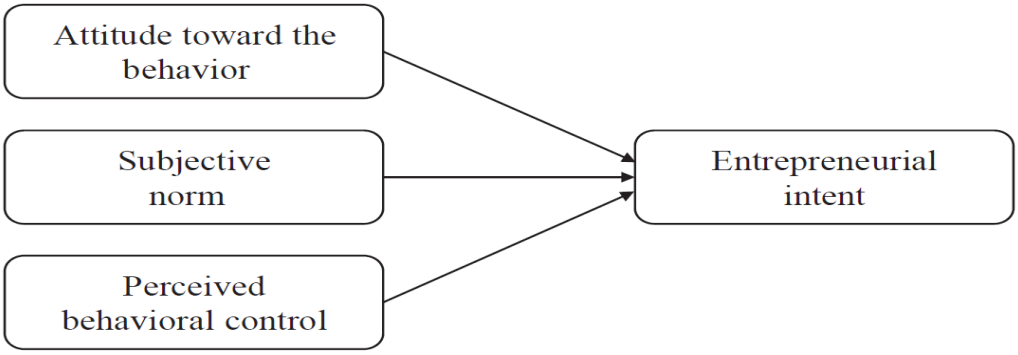


Figure 3.1.
Theory of planned behavior

Bird (1988, 1992) defined intention as a state of mind that focuses a person's attention, experience and behavior toward a specific object or method of behaving. He further suggested that EI directs critical strategic thinking and decisions and operates as a perceptual screen for viewing relationships, resources, and exchanges (Bird, 1988, 1992). Figure 3.1 illustrates Bird's (1988) conception of the contexts of entrepreneurial intentionality. According to this framework, individuals are predisposed to entrepreneurial intentions based on both personal and contextual factors. Personal factors include prior experience as an entrepreneur, personality characteristics, and abilities. Learned (1992)

suggested that these background factors influence the propensity of the individual to establish a new venture. Contextual factors consist of social, political, and economic variables, such as displacement, changes in markets, and government deregulation (Bird, 1988). Intentions are further structured by both rational/analytic thinking (goal-directed behavior) and intuitive/holistic thinking (vision). These thinking processes underlie the creation of formal business plans, opportunity analysis, and other goal-directed behaviors. Entrepreneurial intentions may be directed toward the creation of a new venture or the creation of new values in an existing venture (Bird, 1988).

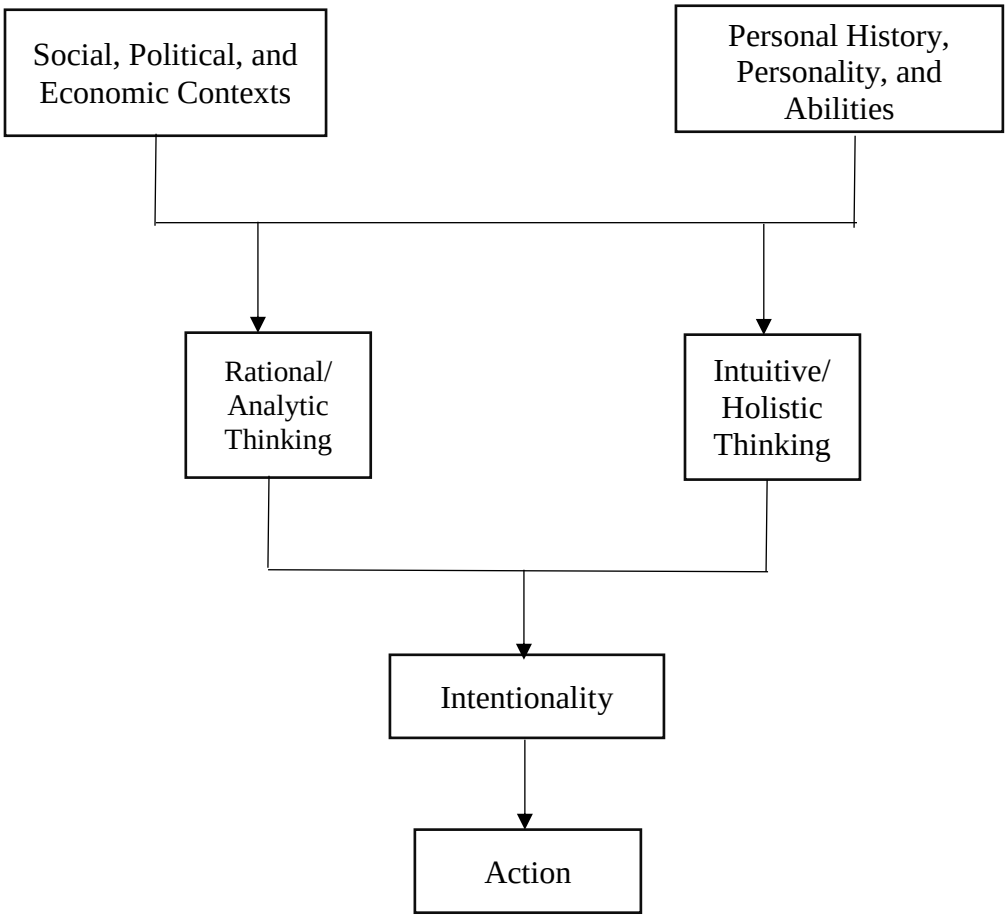


Figure 3.2.
Contexts of entrepreneurial intentionality (Bird, 1988)

Thus, entrepreneurial intentionality incorporates contextual factors and personal characteristics to a broader framework that attempts to explain why people engage in entrepreneurial behavior. Recent research on social psychology supports the need to modify Bird's (1988) model of entrepreneurial intentionality to incorporate antecedent factors that explain the strength of the relationship between intentions and behavior. The TPB (Ajzen, 1985, 1987) suggests that an important determinant of both intentions and behavior is perceived behavioral control. This factor describes the perceived ease or difficulty of performing a behavior, reflecting both an individual's past experience and anticipated future obstacles (Ajzen, 1987). Intentions reflect a person's willingness to pursue a given behavior, whereas perceived control considers the realistic constraints and limitations that may exist.

Several models are proposed to illustrate the relationship between the personal characteristics of individuals and their EI (Ajzen, 1987; Bird, 1988; Boyd & Vozikis, 1994; Krueger & Brazeal, 1994; Shapero & Sokol, 1982). Among these intention formation models, the SEE model focuses on different aspects of the cognitive–behavioral frameworks. This model suggests that the intention to start a new venture depends on three elements, namely, (1) perceived desirability, (2) perceived feasibility, and (3) propensity to act. Perceived desirability refers to the degree of attraction that an individual perceives toward a specific behavior. Perceived feasibility pertains to the perception of individuals regarding their own capacity to perform a specific behavior. Propensity to act denotes the personal disposition to act on one's decisions that reflect the volitional aspects of intention.

The choice of the actual behavior depends on the credibility of alternative behaviors plus the propensity to act (without which the decision maker may not take any significant action) (Krueger & Brazeal, 1994).

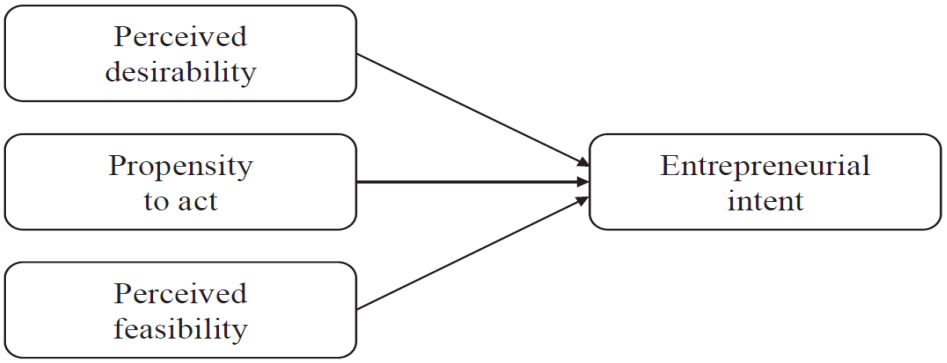


Figure 3.3.
SEE model (Shapero & Sokol, 1982)

In this context, the credibility of individuals' entrepreneurial venture requires the behavior to be seen as both desirable and feasible. An entrepreneurial event requires venture credibility, perceived desirability, perceived feasibility, and propensity to act. Shapero (1982) further provided evidence on why perceptions are critical in this process. The formation of behavioral intention highly depends on perceptions toward entrepreneurship, actual business venture, and volitional choice option (Shapero & Sokol, 1982). However, this model only illustrates three independent variables to predict intention. To correspond to what Shapero and Sokol (1982) demonstrated in their study, perception toward entrepreneurship should be predicted based on a multidimensional structure including credibility and behavioral propensity. Shapero (1982) further stated that in new venture creation, no single variable or factor can account for the outcome of the process. A number of outcomes are necessary, but no finding is sufficient.

2.2. Entrepreneurial venture credibility

The SEE model successfully deals with the significance of individuals' overall assessment regarding credibility of and propensity to the behavior. Originally, the SEE model specified that individuals' behavioral intentions are dependent on two main factors, namely, venture credibility (VC) and propensity to act (PA) (Shapero & Sokol, 1982; Shapero, 1985). These antecedents affect the intentions toward the behavior or action of new venture creation. The SEE model allows for the case in which an individual perceives new venture creation as desirable and feasible and thus credible, and these perceptions are likely to generate an intention to start a business venture (Veciana, Aponte, & Urbano, 2005). However, this model does not reflect the dimension of "venture credibility" that has long been defined. Many previous researchers (e.g., Erikson, 2001; Guerrero, Rialp, & Urbano, 2008; Krueger, 1993; Krueger & Brazeal, 1994; Peterman & Kennedy, 2003; Segal, Borgia, & Schoenfeld, 2005; Shapero, 1985) also identified that VC in entrepreneurship features multi-dimensional structures that include perceived venture feasibility (PF) and perceived venture desirability (PD). This multi-dimensional structure of venture credibility can be interpreted that PF and perceived credibility should be collectively understood in the context of EI formation.

However, little to none of previous studies highlight on the multi-dimensionality of VC as a measure. Guerrero et al. (2008) empirically tested the multidimensionality of credibility by employing desirability and feasibility and the relationship between credibility and intention. Both desirability and feasibility significantly contribute to the credibility measure, which exerts significant positive effect on intention (Guerrero et al., 2008). Rather than adopting the empirically tested SEE model with three separate independent variables

(PF, PD, and PA), study II employs a conceptual model with theory-driven hypotheses among PF, PD, and VC, which is one of two significant dependent variables in EI formation.

2.2.1. Perceived feasibility

Originally, Shapero (1982) emphasized the importance of perception of financial support to a specific attitude toward entrepreneurial venture. Apart from the perception of the financial support, the perception of the availability of other supports, such as business consultation, relevant education and training, and individuals' advice, can also be included in the PF to have a positive attitude toward the feasible venture creation in the future (Shapero, 1982).

In the EI context, PF has been defined as the individuals' perception of feasible future states that are related to the attitude toward new venture creation (Shapero & Sokol, 1982). PF refers less to the degree to which individuals consider the internal and external factors to start their own business and more to the individuals' attitude toward the feasibility of the behaviors necessary to become an entrepreneur.

PF reflects the attitude toward individuals' potential to start a business as a form of competence (Krueger & Brazeal, 1994). This perception can be understood in the same line with Ajzen's (1987) behavioral control variable, which is focused on an individual's evaluation of his/her ability to manage the business startup process successfully. This evaluation can form an attitude toward a business startup (Krueger & Brazeal, 1994; Krueger et al., 2000). Based on the discussions above, Hypothesis 1 is created.

Hypothesis 1: Perceived feasibility positively contributes to the entrepreneurial venture credibility.

2.2.2. Perceived desirability

In the entrepreneurship context, PD is the degree to which individuals find the prospect of starting a business attractive and is be represented by the desire to perform a behavior to achieve a goal (Krueger & Brazeal, 1994; Shapero & Sokol, 1982). PD functions as the motivational factor that transforms a favorable attitude into EI (Kuehn, 2008; Peterman & Kennedy, 2003). More favorable attitudes justify more favorable perceptions of desirability of the behaviors of becoming an entrepreneur, as perceived desirability reflects the perceived attractiveness of starting a business, which is closely related to Ajzen's (1989) attitude and subjective norm variables (Krueger et al., 2000). This desirability can be influenced by social background, which comprises broad cultural influences, family, friends, and personal exposure to entrepreneurship. Therefore, Hypothesis 2 is created.

> *Hypothesis 2:* Perceived desirability positively contributes to the entrepreneurial venture credibility.

2.3. Relationship between entrepreneurial capitals and venture credibility

RBT forms a link between the cognitive ability of valuing and organizing the different capitals of individual entrepreneurs and attitude toward an entrepreneurial venture (Alvarez & Barney, 2000; Kirzner, 1979; Shane & Venkataraman, 2000). In converting entrepreneurial opportunities to real ventures, entrepreneurs have individual-specific resources that facilitate the recognition of new opportunities; the personal ability to manage, organize, and utilize other capitals; and the capability to overcome risk and failure (Kirzner, 1979; Shane & Venkataraman, 2000). Such perception toward opportunities, capabilities, and

risks associated with entrepreneurial ventures contributes to the attitude of individuals toward entrepreneurial ventures, which results from capitals of individuals (Foss & Ishikawa, 2007).

Attitude is widely acknowledged as an antecedent of perception. Many researchers illustrate that perception stems from individuals' attitude toward an object (Clark, Wegener, & Fabrigar, 2008; Fazio & Williams, 1986; Katz, 1960). Other researchers (Ajzen, 1989; Fishbein & Ajzen, 1975) support the notion that attitude guides perception based on a series of causal relationship in Fishbein–Ajzen's (1975) framework of intention. This framework highlights the causal relationships between the individuals' beliefs and values and intention, which indicates that (1) an actual behavior can be determined by the intention to carry out that behavior, (2) intention stems from the overall appraisal of any given situation and perception toward the subject, and (3) perception results from attitude, which is a function of the values and beliefs of an individual (Ajzen, 1989; Ajzen & Fishbein, 1980; Fazio & Williams, 1986; Fazio, Zanna, & Cooper, 1977). In this procedure, beliefs and perceptions toward the value of individuals' entrepreneurial capital should be appraised and assessed to form the overall attitude of the individuals toward entrepreneurship (Alvarez & Busenitz, 2001). Once this causal relationship is established, attitude is a determinant factor in predicting perception and interpreting later events. As reviewed, previous studies adopt multi-dimensional VC to overarch individuals' perception toward an entrepreneurial venture (PF and PD).

Based on the results of study I, entrepreneurial capital can be a critical clue for prospective entrepreneurs to generate their own attitudes toward self that is a function of values and beliefs to pursue an entrepreneurial opportunity. This pursuit can link values of entrepreneurial capital to the overall appraisal of any given situation and perception (Ajzen,

1989; Fazio & Williams, 1986). Especially on the sharing economy platform, their initial capital sources enable individuals decide whether they have any excessive capitals, whether they are willing to share them, and whether they have positive attitude toward entrepreneurial opportunities based on the profitability and risks. Therefore, entrepreneurial capital can be interpreted as being closely associated with individuals' perceptions toward VC, including the PF and PD of an entrepreneurial venture, and EI.

In this study, the following research hypotheses are developed and proposed:

Hypothesis 3: Entrepreneurial capital positively affects the entrepreneurial venture credibility on the sharing economy platform.

Hypothesis 4: The entrepreneurial venture credibility positively affects EI on the sharing economy platform.

2.4. Propensity to act

Shapero (1982) conceptualized "propensity to act" as the personal disposition to act on one's decisions, thus reflecting the volitional aspects of intentions. Conceptually, PA on an entrepreneurial opportunity depends on control perception, which is the desire to gain control by taking action. PA is derived from the significant effort of individuals and their willingness to perform a perceived behavior (entrepreneurial venture in this case) (Krueger & Brazeal, 1994; Shapero & Sokol, 1982). Thus, PA is interpreted to reflect a person's predisposition to act on a decision.

The SEE model presupposes an individual's willingness to act on choices. This variable has long been argued to be similar to risk-taking propensity and ambiguity tolerance, which is defined as a person's willingness to take action when outcomes are unknown

(Shane, 2003). PA can be measured as the internal locus of control, which is a perception of individuals toward controlling events as "learned optimism" toward their entrepreneurial venture (Krueger et al., 2000). Thus, Hypothesis 5 is generated.

Hypothesis 5: Propensity to act positively enhances entrepreneurial intention on the sharing economy platform.

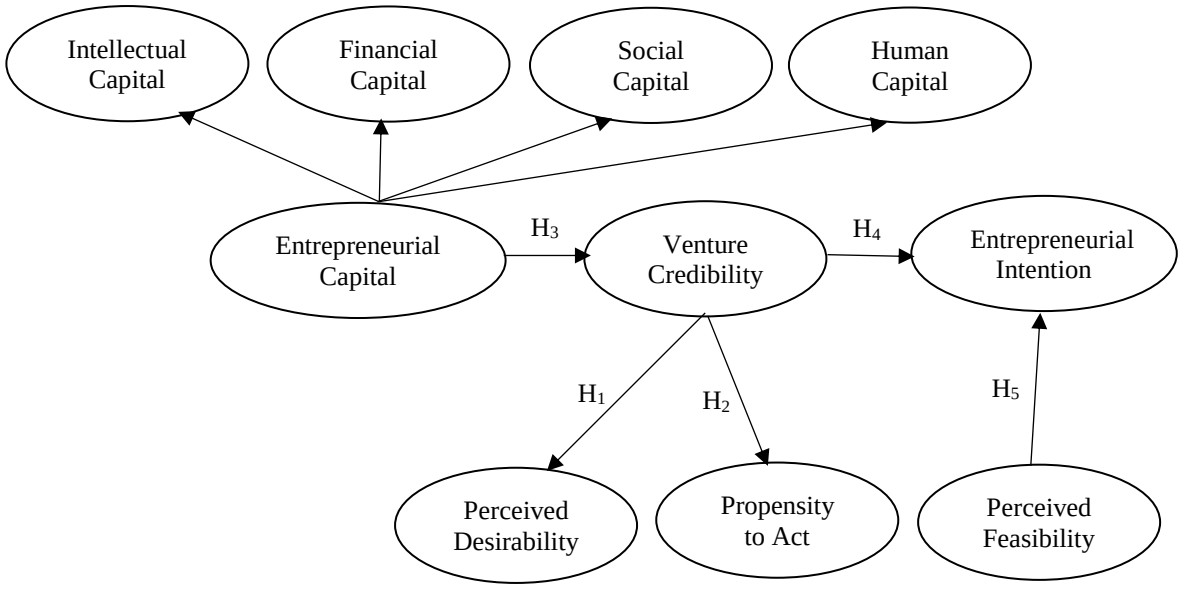


Figure 3.4.
Conceptual model of the extended entrepreneurial event model

The conceptual model of the extended entrepreneurial event model is created based on Hypotheses 1–5. Basically, this model is designed to employ second-order factor models for both entrepreneurial capital (three latent factors under second-order factor) and perception toward an entrepreneurial venture (three latent factors under second-order factor).

3. Research methodologies

This chapter introduces the research methods utilized to test the research questions presented in the literature review. To satisfy replicability, this chapter described the research procedure from the research design and approach to the detailed research methods, including sampling and data collection methods, survey instrument, and statistical analysis. This chapter primarily employs three approaches. First, this study validates the entrepreneurial capital scale developed in Chapter 2. Given that study I successfully conducted item generation and scale purification, validation is essential to secure the validity and reliability of the scale. Second, perception measurements are hypothesized from the previous literature review. As these measurements have not been empirically tested, this study investigates which measurement model is the most suitable to reflect the nature of perception of individuals toward the entrepreneurial venture in sharing economy. Third, to identify the dynamic process of intention formation based on the sharing economy platform, a holistic model is tested from the capital resources in entrepreneurial venture developed in the previous chapter.

3.1. Research design

3.1.1. Sampling and data collection

This study was based on a quantitative approach. Quantitative research design can deliver generalizability of the fact confirmed in data analysis. Study II has three purposes, and all these purposes require generalizability. To satisfy the needs of the quantitative research design, a self-administrated survey was conducted through Research Now, a professional organization that uses their own panel, which includes prequalified respondents.

This panel was used to achieve significant response rates, thus fulfilling the three research purposes of study II and the validity of this study. By employing Qualtrics, an online survey tool that is compatible to the system of Research Now, a survey questionnaire was distributed to the participants. Based on the stratified sampling approach considering the diversity of demographic information, such as age, gender, education, and income, this study achieves data variability that can possibly represent the US population. This survey was conducted from January 13 to 18, 2017. During the survey, 372 survey questionnaires were distributed, and 328 were collected (response rate = 91.9%). As this study employed a professional research organization that owns prequalified panel, high response rate was achieved. The panel includes diverse types of socio-economic backgrounds, and this diversity fulfills generalizability without bias toward any sub-groups. Among the collected questionnaires, 308 in a usable format were kept after the final check.

Table 3.1.
Description of respondents (Study II: n = 308)

Characteristic	Frequency	Percentage
Gender		
Male	141	45.8
Female	167	54.2
Age		
18–24	24	7.8
25–30	46	14.9
31–40	67	21.8
41–50	47	15.3
51–60	57	18.5
61 or older	67	21.8
Ethnicity		
White	244	79.2
Black or African American	26	8.4
American Indian or Alaska Native	5	1.6
Asian	22	7.1
Native Hawaiian or Pacific Islander	2	0.6
Other	9	2.9

Table 3.1. continued

Education		
Less than high school diploma	1	0.3
High school diploma	23	7.4
Some college	181	58.7
Two-year degree	21	6.8
Four-year degree	41	13.4
Professional degree	8	2.7
Doctorate	32	10.4
Missing	1	0.3
Income Level		
Less than $10,000	29	9.4
$10,000 to $19,999	29	9.4
$20,000 to $29,999	37	12.1
$30,000 to $39,999	46	15.0
$40,000 to $49,999	31	10.1
$50,000 to $59,999	28	9.1
$60,000 to $69,999	15	4.9
$70,000 to $79,999	24	7.8
$80,000 to $89,999	17	5.5
$90,000 to $99,999	11	3.6
$100,000 to $149,999	27	8.8
Over $150,000	13	4.2
Missing	1	0.3
Entrepreneurial Experience		
Former entrepreneur but not now	52	16.9
Prospective entrepreneur	66	21.4
Currently active entrepreneur	26	8.4
No entrepreneurial experience at all	164	53.2
Employment Status		
Employed full time	129	41.9
Employed part time	49	15.9
Unemployed looking for work	21	6.8
Unemployed not looking for work	24	7.8
Retired	56	18.2
Student	10	3.2
Disabled	19	6.2

3.1.2. Research instruments

A quantitative approach using a survey questionnaire was employed in collecting data to determine the factors that are significantly related to and how those factors are

associated with EI. The developed questionnaire adapted measurement scales that have been tested and validated by previous studies, and the ECS developed in study I was used.

The questionnaire consists of two parts. The first part focuses on entrepreneurial capitals. In this section, 17 items across four sub-constructs developed from study I were adapted with minor revisions. Table 3.2 illustrates the detailed measurement items of entrepreneurial capitals used. The second part covers perceptions in three hypothesized dimensions, namely, feasibility, desirability, and propensity. Measurement items of each of these three variables are adapted with minor revisions to reflect the characteristics of entrepreneurship on the sharing economy platform. Some measurement items are deleted based on the literature review regarding entrepreneurship and sharing economy. Eleven items are included to measure feasibility, desirability, and propensity (see Table 3.3).

Table 3.2.
Measurement items of entrepreneurial capitals

Questions	1: not at all, 3–4: neutral, 7: extremely important
Financial Capital	
On the sharing economy platform, the financial plan for business startup costs (purchasing house, car, and/or tool) is important to a sharing product/service provider.	1 ----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7
On the sharing economy platform, funds, loans, and credit are important to a sharing product/service provider.	1 ----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7
On the sharing economy platform, investment opportunities available are important to a sharing product/service provider.	1 ----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7
On the sharing economy platform, cash and other monetary resources available are important to a sharing product/service provider.	1----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7

Table 3.2. continued

On the sharing economy platform, governmental support (e.g., tax incentives) is important to a sharing product/service provider.	1----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7
Social Capital	
On the sharing economy platform, social relationship is important to a sharing product/service provider.	1----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7
On the sharing economy platform, social interaction with peers is important to a sharing product/service provider.	1----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7
On the sharing economy platform, marketing activities are important to a sharing product/service provider.	1----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7
On the sharing economy platform, trustworthiness of products and services is important to a sharing product/service provider.	1----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7
On the sharing economy platform, word-of-mouth of customers is important to a sharing product/service provider.	1----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7
Intellectual Capital	
On the sharing economy platform, creativity is important to a sharing product/service provider.	1----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7
On the sharing economy platform, knowledge regarding business operation (e.g., customers, products, and suppliers) is important to a sharing product/service provider.	1----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7
On the sharing economy platform, knowledge regarding business environment is important to a sharing product/service provider.	1----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7
On the sharing economy platform, motivation to explore a new business is important to a sharing product/service provider.	1 ----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7

Table 3.2. continued

Human Capital	
On the sharing economy platform, education level is important to a sharing product/service provider.	1 ----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7
On the sharing economy platform, job training is important to a sharing product/service provider.	1----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7
On the sharing economy platform, past entrepreneurship experience is important to a sharing product/service provider.	1----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7

PF and PD are measured with four respective measurement items adapted from Liñán and Santos (2007). In addition, the PA scale comprises three measurement items adapted from Seligrnan (1991).

Table 3.3.
Measurement items of the entrepreneurial VC and PA

Questions	1: not at all, 3–4: neutral, 7: extremely important
Perceived feasibility	
Doing a kind of job I really enjoy.	1----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7
Helping to solve the problems of my community.	1----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7
Keeping the business alive.	1----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7
Keeping a path of positive growth.	1----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7
Perceived desirability	
Facing new challenges.	1----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7
Creating jobs for others.	1----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7
Being creative and innovative.	1----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7
Being my own boss (independence)	1----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7
Propensity to act	
I would love pursuing an entrepreneurial venture on the sharing economy platform.	1----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7
How tense would you be in the entrepreneurial venture on the sharing economy platform?	1----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7

Table 3.3. continued

How enthusiastic would you be in the entrepreneurial venture on the sharing economy platform?	1----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7

The third part is about EI measurements and includes four items adopted from Liñán and Santos (2007). The last part covers demographic information, including gender, age, racial background, education, income, and employment status.

Table 3.4.
Measurement items of EI

Questions	1: not at all, 3–4: neutral, 7: extremely important
It is very likely that I will start an entrepreneurial venture on the sharing economy platform someday.	1----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7
I am willing to make any effort to become an entrepreneur on the sharing economy platform.	1----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7
My professional goal is to be an entrepreneur on the sharing economy platform.	1----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7
I am determined to start a business on the sharing economy platform in the future.	1----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7

3.2. Data analysis

3.2.1. CFA

To test the hypotheses, the two-step approach suggested by Anderson and Gerbing (1988) was employed. The first step was to conduct a CFA to reduce measurement error caused by multidimensional construct with various indicators (Garson, 2010). In this step, the relationships of each indicator are explored to discover the underlying construct (Schumacker

& Lomax, 2004). The measurement models can identify whether the items reflect the actual relationships calculated from the data collected.

Reliability and validity tests

Initially, Cronbach's α was used to identify internal consistency, which is a reliability estimate (Cronbach, 1951). In this study, three types of reliability were calculated, which included individual item reliability (e.g., Cronbach's α), composite reliability of the overall scale, and the AVE from the subscale. Cronbach's α was used to test the reliability of an individual item, and the cutoff point is more than 0.7 (Moss et al., 1998; Nunnally, 1978), whereas composite reliability and AVE were used to test the reliability of the construct or the latent variables.

Convergent validity refers to the assessment by composite reliability and AVE. Composite reliability, which is the reliability of a summated scale, should be equal to or greater than 0.70 (Hair et al., 1998; Nunnally & Bernstein, 1994). An AVE, which reflects the variance in the indicators explained by the common factor, above 0.50 indicates convergent validity (Fornell & Larcker, 1981; Bagozzi & Yi, 1988).

Construct validity is partly concerned with a measure's correspondence of other constructs. Measures of other constructs should be valid and reliable, and their correspondences with the target measure should be theoretically sound (Cronbach & Meehl, 1955). Construct validity mainly includes convergent and discriminant validity (Shuttleworth, 2009). Through CFA, factor loadings can illustrate convergent validity. Discriminant validity reflects how different any two constructs are. Discriminant validity can be analyzed with AVE. Fornell and Larcker (1981) suggested that the AVE of each construct

has to be greater than the squared correlations with other constructs of the corresponding variable.

3.2.2. Structural equation modeling

The second step was to conduct structural equation modeling (SEM) that enables researchers to identify holistic relationships among many latent factors. SEM can be used to model constructs as latent variables that, unlike observable variables, are not directly observed but are rather inferred from other variables that are observed and directly measured (Byrne, 1998). Based on the conceptual model proposed in this study, the hypotheses statistically test the causality of relationships among variables (Hair et al., 1998).

Model fit indices in SEM

In the SEM analysis, model fit indices were employed to test the hypotheses proposed in the holistic conceptual model. In the structural model, the coefficient of each path can be statistically measured. To accept the model based on the fit of the data, this study considered chi-square, RMSEA, CFI, normed chi-square, and TLI. Using multiple indices is a proper approach to parsimoniously evaluate the conceptual model by offsetting any flaws of each index.

With regard to the chi-square test, normed chi-square ($\chi 2/df$) can be used. This value reflects the ratio of chi-square to the degree of freedom. However, no consistent standards exist for an acceptable model. Some authors suggest a 2:1 ratio, whereas others indicate that the ratio should be less than 3:1 (Kline, 1998). In general, a lower normed chi-square indicates a better fitting model (Hu & Bentler, 1999). Thus, this number can be

comparatively used to see the improvement of model fits of any comparison models. CFI also assesses the relative improvement in model fit compared with a baseline model. A value approximately 0.9 can be interpreted as good model fit, but such judgment of model fit is not highly strict (Bentler, 2007).

RMSEA represents how well the model fits the population covariance matrix (Obst & White, 2005), and it must be less than 0.10 as the bottom line of mediocre fit (MacCallum, Browne, & Sugawara, 1996).

4. Results

This chapter includes three main findings from study II that investigates the following items:

(1) Entrepreneurial capital scale validation

(2) Entrepreneurial VC construct on the sharing economy platform

(3) SEM model of EI formation on the sharing economy platform

The statistical analysis of CFA and SEM is explained as follows.

The normality assumption should first be checked. This normality test reflects the skewness and kurtosis values of each item. The data used in the analysis is normal if skewness and kurtosis are within the range of ± 5.0 (Schumacker & Lomax, 2004). For all the variables under 14 constructs, the value of skewness and kurtosis does not exceed the criteria of normality, thus satisfying the normality assumption.

4.1. Measurement models

CFA with maximum likelihood was implemented to estimate the measurement model. The two-step approach by Anderson and Gerbing (1988) indicates that a measurement model should be estimated prior to the structural model. CFA was conducted to confirm the underlying structures of each construct and assess the reliability and validity of multiple measurement items. The internal consistency of scales was assessed using Cronbach's α, and construct validity was measured with convergent and discriminant validities. Second-order factor analysis was performed to find a better fit of structures in the proposed model.

The measurement model specified eight factors, namely, FC, SC, IC, HC, PF, PD, PA, and EI (see Table 3.6). The measurement models were tested, and each indicator was constrained to load only the factor that it was designated to measure. The residual terms for all indicators were fixed to be uncorrelated, and the factor covariances were free to be estimated. The goodness-of-fit indexes indicated that the model fits the data reasonably well [χ^2 (436) = 908.802, $p < 0.001$, $\chi^2/df = 2.084$, CFI = 0.925, TLI = 0.915, and RMSEA = 0.063 (90% CI: 0.057–0.068)]. The multivariate LM statistics determined no misspecification. Given the reasonable fit indices, the reliability coefficients of the latent constructs, the adequate size of parameter estimates, and the measurement model were statistically valid.

Table 3.5.
Reliability and convergent validity

Construct	Study II					
	Mean	SD	Cronbach's α	Standardized Factor Loadings	Composite Reliabilities	AVE
Financial capital			0.91		0.88	0.60
FC01	5.08	1.60		0.80		
FC02	5.03	1.60		0.83		

Table 3.5. continued

FC03	4.95	1.51		0.79		
FC04	5.05	1.49		0.79		
FC05	4.71	1.63		0.63		
Social capital			0.92		0.89	0.61
SC01	4.96	1.53		0.69		
SC02	4.84	1.51		0.72		
SC03	5.25	1.50		0.80		
SC04	5.52	1.60		0.84		
SC05	5.50	1.52		0.85		
Intellectual capital			0.91		0.88	0.64
IC01	5.22	1.45		0.79		
IC02	5.30	1.52		0.85		
IC03	5.14	1.50		0.83		
IC04	5.09	1.48		0.73		
Human capital			0.76		0.87	0.70
HC01	4.59	1.60		0.79		
HC02	4.89	1.54		0.95		
HC03	5.37	0.96		0.75		
Perceived feasibility			0.81		0.82	0.53
PF03	5.66	1.348		0.75		
PF05	5.11	1.454		0.56		
PF06	5.76	1.408		0.79		
PF07	5.85	1.359		0.81		
Perceived desirability			0.80		0.81	0.53
PD01	4.74	1.509		0.68		
PD02	5.34	1.449		0.75		
PD03	5.63	1.365		0.84		
PD06	5.57	1.479		0.61		
Propensity to act			0.75		0.82	0.60
PA01	4.63	1.854		0.82		
PA02	4.92	1.556		0.58		
PA03	5.14	1.615		0.89		
Entrepreneurial intention			0.95		0.95	0.84
EI01	3.95	1.895		0.86		
EI02	4.18	1.885		0.91		
EI03	4.05	1.941		0.95		
EI04	4.15	2.059		0.93		

Model measurement fit: χ^2 (436) =908.802, $p < 0.05$, χ^2/df = 2.084, CFI = 0.925, TLI = 0.915, and RMSEA = 0.063 (90% CI: 0.057–0.068).

Standardized factor loadings were investigated for convergent validity. The inspection of the standardized factor loadings revealed that all loadings except three items

were around the cutoff value of 0.70; thus, all were statistically significant (ps < 0.05). Only FC05, PD06, and PA02 were below the cutoff value. However, these items were uniquely loaded onto one factor and could be kept on this scale. The AVE from each construct was also greater than the squared correlation coefficients between constructs (see Table 3.6).

The results confirmed that the measurement model has discriminant validity and that the model indicates that constructs do not share a substantial portion of their variance. Each construct was mutually distinctive from others. Cronbach's α ranged from 0.75 to 0.95, which was greater than the recommended level of 0.70 (Nunnally, 1978), and indicated satisfactory internal consistency.

Table 3.6.
Squared correlations matrix and AVE

Measure	PA	PD	EI	PF	HC	IC	SC	FC
PA	1							
PD	0.3844	1						
EI	0.0289	0.0625	1					
PF	0.3249	0.5184	0.0529	1				
HC	0.1089	0.2304	0.0196	0.1936	1			
IC	0.2304	0.4761	0.0361	0.3969	0.4624	1		
SC	0.2025	0.4096	0.0324	0.3481	0.4096	0.6561	1	
FC	0.2209	0.4489	0.0361	0.3844	0.4356	0.5625	0.6084	1
AVE	0.603	0.526	0.835	0.534	0.69	0.64	0.61	0.59

PA = propensity to act; PD = perceived desirability; EI = entrepreneurial intention; PF = perceived feasibility; HC = human capital; IC = intellectual capital; SC = social capital; FC = financial capital; AVE = average variance extracted

The measures of each construct demonstrate convergent and discriminant validity. Moreover, the newly developed scale of entrepreneurial capital on the sharing economy platform is successfully validated by considering the measurement model.

4.2. Measurement model comparison

The final stage of the measurement model compared a series of competing models to a baseline model. The best fitting model that correctly described the underlying structure of a specific construct was identified. Entrepreneurial capital construct and perception construct were tested.

The ECS on the sharing economy platform was successfully developed and purified in study I. Moreover, the previous chapter successfully validated the scale as useful to measure different entrepreneurial capital resources in sharing economy. Six competing models were compared with a baseline model to identify the best fitting model. Among the general alternative models, this study includes (1) a simplified model with only three capitals and (2) an alternative model whose form is theoretically driven. First, three-factor model was designed by merging intellectual capital and human capital (training, education, and experience). In addition, by re-arranging factors of social capital, intellectual capital, and human capital, a re-designed model with four factors was developed. A re-designed model included one unique capital component that represents product (service)-related capital, including marketing activities, product, service, and creativity. Intellectual capital was also remodeled to solely focus on knowledge, experience, training, and education.

(1) one-factor model

(2) three-factor model

(3) four-factor uncorrelated model

(4) four-factor correlated model

(5) redesigned four-factor correlated model

(6) one second-order with four first-order factors

Goodness-of-fit index comparison was employed to identify any model fit improvement among the five models. This improvement can determine the best model that embraces the structure of this construct. Table 3.3 lists the comparison results for the competing models.

The results of the model comparison showed that both the four-factor correlated model and one-second order factor with four first-order factors model have good model fit with mixed results on each goodness-of-fit index. However, given that this study aims to develop a comprehensive ECS as proven in study I, one second-order factor with four first-order factor model can be used. This finding suggested that one overarching second-order factor EC with four latent factors (FC, SC, IC, and HC) and 17 measurement items can be a parsimonious model reflecting the appropriateness of the measurement model.

Table 3.7.
Comparison of measurement models of entrepreneurial capital structure

Model	$\chi2$	df	$\Delta\chi2$	Δdf	Normed $\chi2$	TLI	CFI	RMSEA
Null	3364.585	136			24.73	0	0	0.293
One-factor model	533.851	119	2830.73	17	4.48	0.853	0.872	0.112
Three-factor model	433.329	116		20	3.736	0.885	0.902	0.099
Four-factor Uncorrelated model	1114.749	119	2249.84	17	9.36	0.648	0.692	0.174
Four-factor correlated model	269.857	113	3094.73	23	2.38	0.932	0.941	0.081
Four-factor correlated model re-designed	413.536	113		23	3.660	0.888	0.907	0.098
Second-order model with four first-order factors	302.994	115	3061.59	21	2.63	0.931	0.942	0.077

$\chi2$ = chi-square; df = degrees of freedom; $\Delta\chi2$ = chi-square difference statistic; Δdf = difference in degrees of freedom; Normed $\chi2$ = $\chi2$/df; TLI = Tucker–Lewis index; CFI = comparative fit index; RMSEA = root mean square error of approximation.

This study also conducted another series of model comparisons to confirm the best structure of the perception-related variables that were previously tested. Based on the

previous literature, this study designed the second-order model of venture credibility with two sub-constructs, including PF and PD. Two factors with eight measurement items were structured using the second-order factor model.

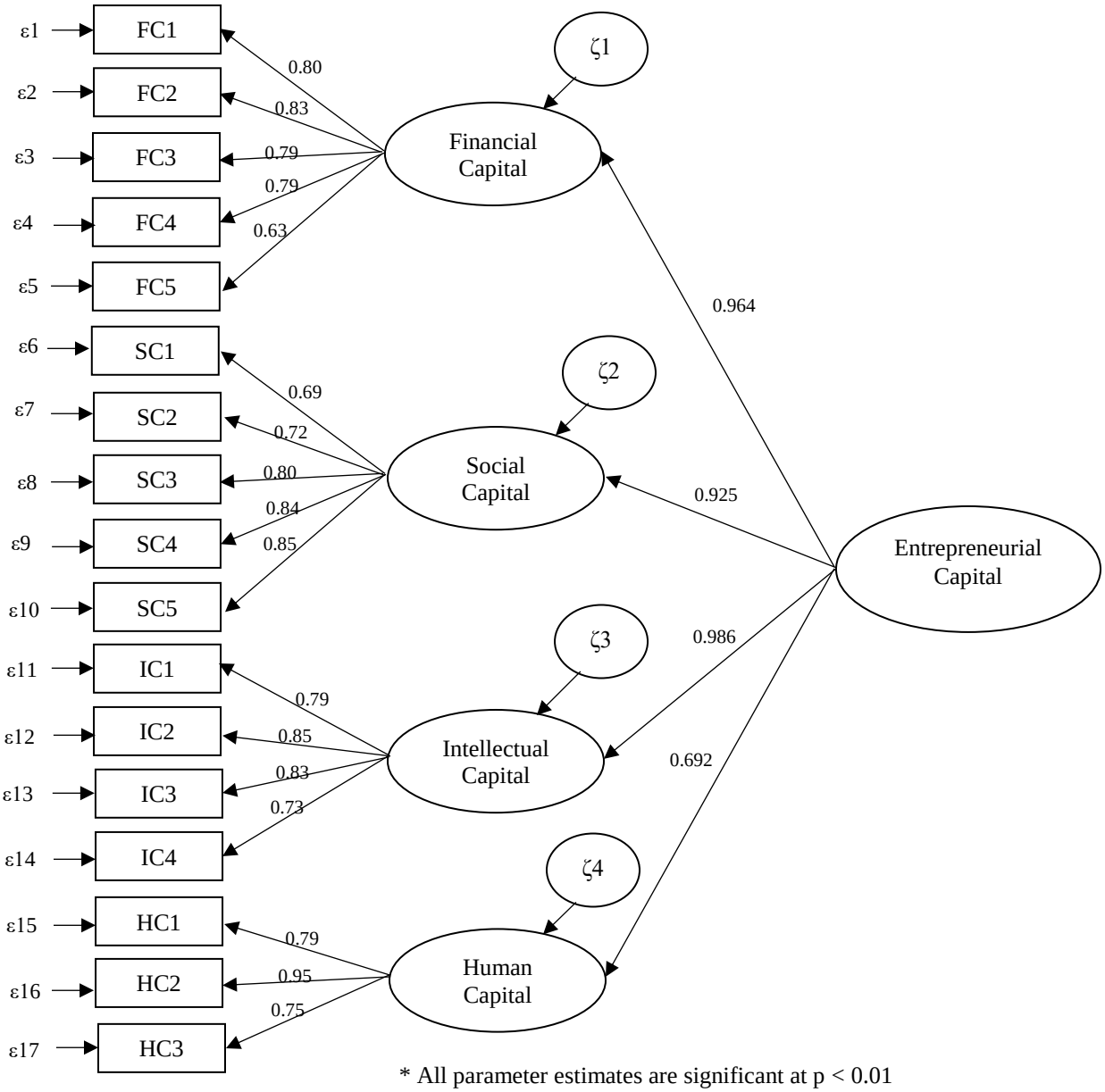
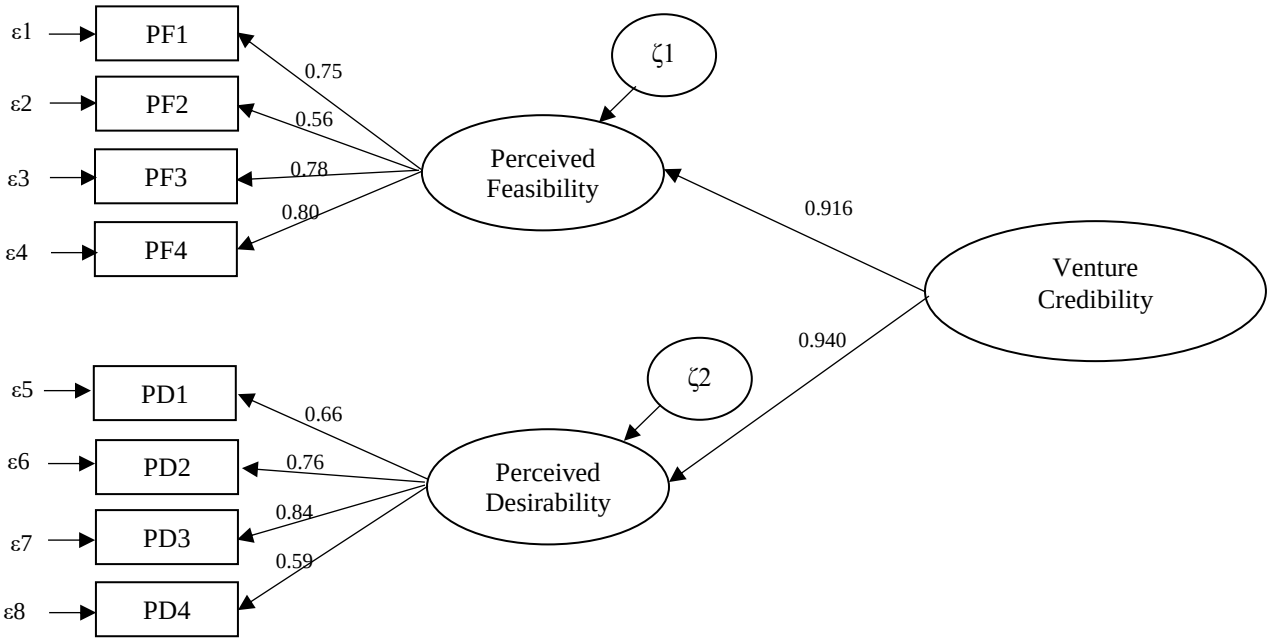


Figure 3.5.
Measurement model of entrepreneurial capital with four first-order factors

The theory-driven measurement model of VC shows adequate model fit as a form of the second-order factor model [χ^2 (19) = 70.847, $p < 0.001$, Normed $\chi 2 = 3.729$, CFI = 0.936, TLI = 0.915, and RMSEA = 0.088 (90% CI: 0.072−0.103)]. The venture credibility can be assessed by confirming this second-order model to measure the EI in the SEM (Figure 3.6.)



* All parameter estimates are significant at p < 0.01

Figure 3.6.
Measurement model of venture credibility with two first-order factors

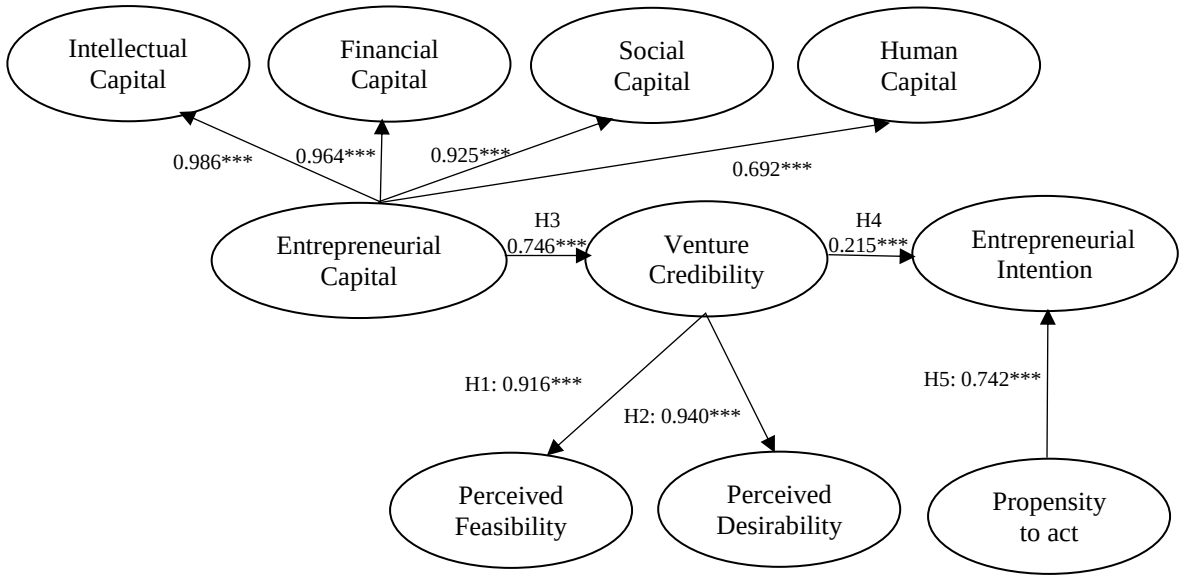
4.3. Structural model

SEM should be based on a sound measurement model. The results of the measurement models indicated that the SEM can conduct a series of hypothesis testing. The measurement was re-specified to include the structural regression paths in place of factor covariance to investigate the goodness of fit of the hypothesized model. The proposed structural model presented an acceptable fit to the data [$\chi 2$ (456) = 1081.918, $p < 0.001$, $\chi 2$/df = 2.373, CFI = 0.901, TLI = 0.901, and RMSEA = 0.070 (90% CI: 0.065−0.076)]. CFI was

slightly over the recommended cutoff value of 0.90, and RMSEA was greater than 0.05 but still within the acceptable range. This model also indicated a low normed chi-square value ($\chi 2/df = 2.373$), which is less than 3 (Kline, 1998). Thus, this model was selected as the final model and presented in Figure 3.7 along with the estimates of standardized regression coefficients.

The results of SEM showed that this study supported all five hypotheses. First, all parameter estimates in this model were statistically significant. Both PF (H_1) and PD (H_2) significantly contributed to the VC on the sharing economy platform. Both factors (PF and PD) were significantly loaded onto a second-order factor (VC) in that both hypotheses were supported. Second, path coefficients from entrepreneurial capital to VC (H_3: ß = 0.746, $p < 0.01$) and from VC to EI (H_4: ß = 0.215, $p < 0.01$) were significant, which supported *Hypotheses 3* and *4*. Therefore, entrepreneurial capital significantly influences the VC of entrepreneurs ($R^2 = 0.556$) on the sharing economy platform. One unit change on entrepreneurial capital made a 0.746-unit standard deviation change in VC. Moreover, one unit change in VC resulted in a 0.215-unit standard deviation change in EI. Finally, PA exerts a significant positive effect on EI (H_5), indicating that *Hypothesis 5* was supported. The path coefficients from VC to EI (H_3: ß = 0.746, $p < 0.001$) and from PA to EI (H_5: ß = 0.742, $p < 0.001$) were significant, thus explaining that one unit change in PA resulted in a 0.742-unit standard deviation change in EI. Therefore, R^2 of EI in this model is 0.596.

This model indicated that entrepreneurial capital is positively associated with VC on the sharing economy platform. This VC with PA can be a statistically significant variable in predicting EI on the sharing economy platform.



Entrepreneurial capital and venture credibility are high-order factors.
χ^2 (456) = 1081.918, $p < 0.00$, Normed $\chi 2 = 2.373$, CFI = 0.901, TLI = 0.900,
and RMSEA = 0.068 (90% CI: 0.063−0.074), *$p < 0.05$, ***$p < 0.01$, *** $p < 0.001$

Figure 3.7.
Structural model with standardized parameter estimates

5. Conclusion

Study II was designed to identify the holistic process of EI formation on the sharing economy platform. The present author developed a holistic structural model that embraced initial resources and individuals' perception toward entrepreneurial venture on the sharing economy platform to satisfy the main purpose of this study.

First, study II successfully validated the newly developed scale of entrepreneurial capital on the sharing economy platform. The results of item generation and scale purification showed that the scale was employed to empirically test the significance of resources-based theory on entrepreneurship in the sharing economy setting. Study II identified that 17 items were valid and reliable to precisely measure the four different types

of capitals that directly contribute to entrepreneurial capital. The multi-dimensional structure was validated in this study, and, thus, the second-order factor model can represent the measurement model in the entrepreneurial capital on the sharing economy. The four first-order constructs (FC, SC, IC, and HC) significantly contributed to the second-order factor (EC). Thus, the scale development procedure showed that scale validation was fulfilled in this study. This fulfillment secured the justification of using the scale on the structural model that predicted EI on the sharing economy platform.

Second, a series of CFA was performed to find the best fitting model of perception construct by considering three widely acknowledged dimensions (feasibility, desirability, and propensity to act). This study successfully described the construct of perception measure by employing a second-order factor model. All three sub-constructs significantly contribute to the perception formation. Feasibility in this finding leaned toward the accountable outcomes from individuals' venture. Thus, feasibility can be understood as a practical guidance toward a business venture given internal and external resources. Business on the sharing economy platform must still work for money, and individual entrepreneurs on this economy platform should pursue business success by gaining loyal customers and profitability. Entrepreneurs in the sharing economy setting utilize and share their excessive resources (e.g., house on Airbnb, car on Uber, and tools on SnapGoods) in that the feasibility of entrepreneurial venture can significantly contribute to the overall perception toward entrepreneurship. Individual entrepreneurs can minimize their initial investment on capital resources and maximize the utility of their resources by sharing for profit and not owning given that the sharing economy is a form of collective consumption.

Desirability, which focuses on individuals' perceived attractiveness of the business venture, explains the subjective norm and motivational factors. Prospective entrepreneurs under limited resources on the sharing economy can reflect individuals' desired outcomes. The anticipated outcomes of entrepreneurial venture can offer clues when judging whether the entrepreneurial venture is attractive enough to invest limited resources. Most of the desired outcomes of micro-entrepreneurs are directly related to their needs, such as being self-employed by creating a job and being an independent business owner by venturing innovative and creative entrepreneurial opportunities on sharing economy platforms.

Supported by previous studies (e.g., Ajzen, 1985; Shane, 2003), propensity measures self-efficacy and the locus of control that reflect the willingness to exploit entrepreneurial opportunities and self-belief toward an entrepreneurial venture. Entrepreneurs on the sharing economy platform can minimize the risks embedded in the nature of business venture by utilizing excess capital resources (i.e., houses not being occupied and car and tools not being utilized). Thus, those who are self-centered and willing to take an acceptable risk in the entrepreneurial venture on the sharing economy platform can take actions when business performance and outcomes are unknown (Shapero & Sokol, 1982; Shane, 2003). The low-entry barrier characteristic of the P2P market and the low risk of failure (utility of excessive resources) on the sharing economy platform likely contribute to an optimistic perception toward entrepreneurial venture on the sharing economy platform.

Third, a holistic model of EI formation was developed. This model overarched three main variables, including entrepreneurial capital, perception, and EI. This model proved that entrepreneurial capital is positively associated with perception toward entrepreneurial venture on sharing economy by employing ECS on the sharing economy platform. This

finding supports previous studies (e.g., Alvarez & Barney, 2000; Shane & Venkataraman, 2000) stating that RBT successfully fills the gap between entrepreneurial capital, which enables the generation of individuals' attitude toward entrepreneurship, and perception toward entrepreneurial venture. This attitude toward entrepreneurial capital leads to the overall assessment regarding self-confidence, attractiveness of being an entrepreneur, and willingness to start an entrepreneurial venture on the sharing economy platform. This perception is a significant determinant of EI. Individuals' comprehensive evaluation regarding their internal (social relationships, creativity, and motivation) and external (physical assets such as house, car, tools, and music) resources and motivational factors (feasibility, desirability, and propensity to act) strengthen behavioral intention to exploit entrepreneurial opportunities.

CHAPTER 4

DISCUSSION

Chapters 2 and 3 provide empirical evidence supporting the universal scale of entrepreneurial capital on the sharing economy platform with four dimensions and the holistic model of EI formation based on RBT. This research targets entrepreneurial venture on the emerging sharing economy platform by employing the newly developed measurement scale. This chapter discusses the theoretical contributions and practical implications based on the conclusions of studies I and II. It also presents limitations and suggestions for future research.

1. Theoretical contribution

Study I is the first attempt to develop and measure entrepreneurial capital that reflects the characteristics of entrepreneurial venture on the sharing economy platform. With this attempt, the present study was informed by qualitative interviews and content analysis. The result of the basic information generated from a qualitative approach indicates that the present researcher can also conceptualize a four-factor scale (financial, social, intellectual, and human capital) with 16 measurement items that precisely measure entrepreneurial capitals on the sharing economy platform. This scale can be used to measure other psychometric variables that are related to entrepreneurship and the capital structure of prospective entrepreneurs in the future.

This scale development procedure can also contribute to the body of literature that deals with entrepreneurship. Many researchers state that the different sets of resources are critical in terms of business success in the marketplace (e.g., Alvarez & Busenitz, 2011; Chen, Cheng, & Hwang, 2005; De Carolis & Saparito, 2006; McGehee et al., 2010; Shane & Venkataraman, 2000). This newly developed scale overarches the context of entrepreneurship on the newly emerged economy platform. The sharing economy platform has been growing with unique characteristics (collaborative consumption), and, thus, researchers must focus on entrepreneurship in sharing economy.

The present study provides a more detailed and thorough conceptualization of entrepreneurial capital in sharing economy than what has been explored. Entrepreneurial capital is a multi-dimensional construct. Thus, this study successfully reflects nature in the four-factor measurement scale that is statistically reliable and valid.

Given the achieved validity and reliability, this scale can be immediately utilized to measure capitals of those who are or planning to be in an entrepreneurial venture. Each capital has been reviewed separately to shed light on its significance. This scale merged all potential capitals into one four-factor scale. Employing this scale would more precisely measure VC and EI in sharing economy. To develop a holistic model that predicts individuals' EI in the extended model of EI formation on the sharing economy platform, this scale can be used to link individuals' belief on the value of their capital structure and its significance on the credibility of entrepreneurial venture, which can be determinants of EI.

Study II makes a significant contribution to deeply explore the structure of venture credibility construct. This study is the first attempt to use two sub-constructs (PF and PD) in measuring the high-order VC construct. Employing a second-order factor model, this study

successfully describes each sub-construct's significant contribution on the second-order factor VC measure. This multi-dimensional structure using the second-order factor model contributes to the body of literature regarding the nature of entrepreneurial venture and perceived credibility on the venture by highlighting that credibility cannot be measured by a uni-dimension structure and scale that reflects only a part of the cognitive evaluation on an entrepreneurial venture. The findings of this study show that VC should be understood more comprehensively in that its measure contains a complex structure by embracing both PF and PD.

Many studies deal with the VC as a complex measure, but few of them demonstrate that this construct can be measured by sub-constructs that reflect specific attributes of perception (PF and PD) in the context of EI formation. Previous research employs perception-related measures separately and make regression paths directly link different individual perception-related measures to behavioral intention. On the contrary, the present study reveals that VC should be measured comprehensively given that it works as an overall evaluation on entrepreneurial venture based on attitude toward the entrepreneurship possibly generated by an overall assessment of individuals' capitals. Although each sub-construct has different contributions on the VC measure, this model can reflect the collective and comprehensive meaning of credibility and successfully overarch multi-dimensions of the credibility measure.

Finally, this research employs the sharing economy platform, which is a unique business setting. Many intention models have been widely developed and discussed in entrepreneurship research (e.g., TPB model, SEE model, and Bird's intentionality model); however, this study focuses on entrepreneurship on the sharing economy platform. To satisfy

this purpose, RBT is employed to navigate the process of having perception toward the entrepreneurial venture based on the importance of the different combinations of initial capital for an entrepreneurial venture in sharing economy. This model finds that different sets of capital resources contribute to the overall assessment of oneself regarding the business ventures on the sharing economy platform, which can form an attitude toward entrepreneurship on this platform.

This study extends previous models that deal with EI by adding the antecedents of perception (i.e., capital resources named entrepreneurial capital). The present study empirically assesses causal relationships between (1) entrepreneurial capital and VC and (2) VC and PA and EI. This structural model widens the scope of view toward EI specifically on the sharing economy platform. This model conveys the importance of the conceptualized business preparation model by reflecting business-specific characteristics in entrepreneurial capital and VC structures. Minimal attention has been given to the entrepreneurial capital in the hospitality industry. The present study offers an essential theoretical contribution by designing this model, which is exclusively focused on the sharing economy platform in the hospitality industry. This model can be employed to test different entrepreneurship settings and investigate how entrepreneurial capital on one industry is different from those of other industries. This attempt to explore unique attributes and characteristics of different industry segments by making different mixtures of capital resources is fruitful.

2. Practical implication

This study provides practical contributions and future implications to practitioners and business people who plan to engage in an entrepreneurial venture. Individuals who plan

to launch an entrepreneurial venture can have clear insights into what to prepare as entrepreneurial capitals from the newly developed ECS. This scale embraces almost all possible capitals related to entrepreneurship and can be used as a checklist for reference. For example, financial capital includes cash and credits as well as investment opportunities and governmental support. Social capital includes relationships with others, interactions with other entrepreneurs, and marketing-related benefits. Intellectual capital reflects the knowledge, creativity, and motivation of individual entrepreneurs. Human capital reflects education and job training, which are essential to reduce risks embedded into the entrepreneurial venture. Seventeen measurement items under four latent factors can also be used to educate and train other prospective entrepreneurs who are willing to launch an entrepreneurial venture in sharing economy platforms. This scale is developed based on the characteristics of sharing economy platforms. Educators and business consultants can have thorough insights from this scale to teach, train, and educate future entrepreneurs who are highly interested on the sharing economy platform.

In addition, when developing the new measurement scale, the sample from two different areas with different regional characteristics secures various market contexts and different perceptions and evaluations about entrepreneurial capitals in sharing economy. This heterogeneity can be a strong evidence of the generalizability of this scale. This scale can be utilized by diverse populations in different areas by considering two unique bipolar regions (New York City, NY and Ames, IA). Thus, the scale developed and the model conceptualized in this study by employing the scale can be adopted by those who are planning to start a business venture in different areas with different regional characteristics.

Second, a conceptualized model of EI formation on the sharing economy platform can be used to warn those who want to make a business venture without a thorough review of themselves and their capitals. Embracing change and understanding the fast-paced marketplace promote the innovation of individuals who want to dive into the sharing economy platforms. Entrepreneurs need to have thorough insights into the business and an innovative and creative mind to seek new business opportunities that are faster than others. Entrepreneurs should be guided to maximize their utility based on the types of current capital resources and prediction about risks embedded in the business venture. This conceptual model successfully highlights the importance of a strategic approach toward the entrepreneurial venture on the sharing economy platform. Individual entrepreneurs should differentiate and/or follow any successful business model to achieve a competitive advantage in the market. First, prospective entrepreneurs who want to minimize the risk can follow current sharing economy platforms, such as Airbnb, Uber, and Zipcar. Entrepreneurs can prompt their intention to make an entrepreneurial venture for their career by sharing their properties and capital resources with a low risk of failure. However, this study finds that innovation and motivation significantly contribute to the intellectual capital of entrepreneurs who want to be market leaders and pioneers. The findings show that prospective entrepreneurs can be guided to predict future potentials and new trends on the sharing economy to initiate a new form of distribution channels (i.e., Airbnb community network that enables entrepreneurs share available rooms), adopt new technologies (mobile web that enables to call Uber), and exploit the possible capital that can be shared with others for profit (i.e., tools, music, Wi-Fi network, knowledge, and workforce).

Third, a new measurement model of VC can be a guideline for the evaluation of individuals' self-belief in pursuing an entrepreneurial venture. Many business consultants can reflect this measurement model to precisely calculate how prospective entrepreneurs assess their internal and external resources as well as how they perceive the attractiveness of the new venture. Business consultants can also utilize this measurement model to evaluate how prospective entrepreneurs are prepared to undertake a business venture on the sharing economy platform. Competency on a business venture, the attractiveness of the new business and entrepreneurship, and the willingness to devote oneself to the entrepreneurial venture can be a great source of guidance on how to prepare for an entrepreneurial venture. Thus, consultants and educators can deliver proper types of education and training for strengthening prospective entrepreneurs' motivation to initiate a new business on the sharing economy platform.

Finally, entrepreneurship has been undervalued by educators although entrepreneurship can be a way to escape the unemployed status. Nevertheless, compulsive business ventures are not a proper form of entrepreneurship. Educators need to reflect the findings of this study to emphasize the characteristics of the industry, the unique value of entrepreneurship on sharing economy, strengths and weaknesses in capital resources, and opportunities and threats existing in the market. By considering all these critical elements of entrepreneurship in training and education programs, prospective entrepreneurs may realize their current status, market changes and trends, capabilities to exploit opportunities, and threats embedded in sharing economy. The sharing economy platform is a proactive and dynamic system of business. Individual entrepreneurs need to learn more from educators

about marketing, management, communication, accounting, and technologies to fulfill the characteristics of this business platform.

3. Limitation and future research

This study bears four limitations. First, this study used a small number of samples in item generation procedure (59) and scale purification procedure (152). Most of the fit indexes are sensitive to the sample size. Thus, having a large sample size in the validation and other development processes is beneficial. In addition, although this study embraced diverse types of items that measure entrepreneurial capital, the qualitative approach can be biased based on individuals' specific values and proposition regarding the industry and economy platform. Qualitative data were collected from one area in that the regional characteristics are highly likely to influence interview participants' attitude toward the entrepreneurial venture and sharing economy platform. Thus, inviting more interviewees is meaningful to obtain in-depth and generalizable insights and develop an improved scale in the future research.

Second, this study on the VC and PA measures adopted previously tested measurement items to explore its construct. This study successfully dealt with the new construct of VC measure by employing a second-order factor model, which can be a critical limitation of this measurement mode. Future studies should develop a unique measurement scale of PF and PD toward an entrepreneurial venture. As study I demonstrated, future research should go through scale development from item generation to scale validation.

Third, this study used the chi-square difference test to compare the model in the CFA. However, data showed a significant chi-square value of $p < 0.00$. Many previous researchers argue that chi-square is highly sensitive to sample size, which leads to future research

questions regarding the purifying and refining of a research model. This study contains a limited number of variables. The possibilities of having more variables and items that should be reflected in the measurement model and structural model are abundant. Therefore, this model can be re-developed and re-tested using a large sample size based on other theories that can handle the context of sharing economy and entrepreneurship and likely meaningful variables. This approach can solve a misspecification issue. In addition, although the fit of the measurement models and structural model are adequate, they are not excellent. The main reason researchers are pursuing great model fit is to interpret findings from the statistical analysis with confidence. Re-specifying model, recruiting larger samples, further exploring theories and empirical tests, and designing a parsimonious model that fully reflects the nature and structure of model should be done to achieve greater model fit than that of the present study. By fulfilling these queries, researchers can interpret all parameter estimates with confidence.

Fourth, this study includes only three main variables in the intention formation of the conceptual model, although a more complex process of intention formation exists. For example, this study only uses entrepreneurial capital as a critical determinant of VC. However, other factors can have significant contributions to VC and EI. Cultural background, personality and traits, and other cognitive factors that likely influence individuals' perception and intention to make entrepreneurial venture should be included in future studies to make more precise and comprehensive conceptual models.

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APPENDIX A

HUMAN SUBJECT INSTITIONAL REVIEW BOARD APPROVAL

IOWA STATE UNIVERSITY
OF SCIENCE AND TECHNOLOGY

Institutional Review Board
Office for Responsible Research
Vice President for Research
2420 Lincoln Way, Suite 202
Ames, Iowa 50014
515 294-4566

Date: 2/9/2017

To: Jaewook Kim
31 MacKay

CC: Dr. Liang Tang
12 MacKay Hall

From: Office for Responsible Research

Title: Building a Dynamic Model of Entrepreneurial Intention Formation in Sharing Economy Platform Using the Resource-Based Theory Approach

IRB ID: 17-028

Study Review Date: 2/9/2017

The project referenced above has been declared exempt from the requirements of the human subject protections regulations as described in 45 CFR 46.101(b) because it meets the following federal requirements for exemption:

- (2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey or interview procedures with adults or observation of public behavior where
  - Information obtained is recorded in such a manner that human subjects cannot be identified directly or through identifiers linked to the subjects; or
  - Any disclosure of the human subjects' responses outside the research could not reasonably place the subject at risk of criminal or civil liability or be damaging to their financial standing, employability, or reputation.

The determination of exemption means that:

- **You do not need to submit an application for annual continuing review.**

- **You must carry out the research as described in the IRB application.** Review by IRB staff is required prior to implementing modifications that may change the exempt status of the research. In general, review is required for any modifications to the research procedures (e.g., method of data collection, nature or scope of information to be collected, changes in confidentiality measures, etc.), modifications that result in the inclusion of participants from vulnerable populations, and/or any change that may increase the risk or discomfort to participants. Changes to key personnel must also be approved. The purpose of review is to determine if the project still meets the federal criteria for exemption.

  Non-exempt research is subject to many regulatory requirements that must be addressed prior to implementation of the study. Conducting non-exempt research without IRB review and approval may constitute non-compliance with federal regulations and/or academic misconduct according to ISU policy.

  Detailed information about requirements for submission of modifications can be found on the Exempt Study Modification Form. A Personnel Change Form may be submitted when the only modification involves changes in study staff. If it is determined that exemption is no longer warranted, then an Application for Approval of Research Involving Humans Form will need to be submitted and approved before proceeding with data collection.

Please note that you must submit all research involving human participants for review. **Only the IRB or designees may make the determination of exemption**, even if you conduct a study in the future that is exactly like this study.

Please be aware that **approval from other entities may also be needed.** For example, access to data from private records (e.g. student, medical, or employment records, etc.) that are protected by FERPA, HIPAA, or other confidentiality policies requires permission from the holders of those records. Similarly, for research conducted in institutions other than ISU (e.g., schools, other colleges or universities, medical facilities, companies, etc.), investigators must obtain permission from the institution(s) as required by their policies. **An IRB determination of exemption in no way implies or guarantees that permission from these other entities will be granted.**

Please don't hesitate to contact us if you have questions or concerns at 515-294-4566 or IRB@iastate.edu.

APPENDIX B

COVER LETTER AND QUESTIONNAIRE FOR STUDY 2

Survey on entrepreneurial intention formation on the sharing economy platforms

Thank you so much for participating this survey. This survey contains 4 parts. This survey is conducted for academic purpose only. You can participate in this research if you are 18 years or older. This survey may take 3-5 minutes to answer. There are no foreseeable risks of participating in this study. Your participation is voluntary. All the information gathered in this study will be kept confidential. No reference will be made in written or oral materials that could link you to this study. Your survey responses will be anonymous and confidential.

If you have any questions and/or problems regarding this survey, please feel free to contact to the researcher (Jaewook Kim, jkim0211@iastate.edu / Liang (Rebecca) Tang, rebeccat@iastate.edu). Your efforts in participating in this research project are deeply appreciated.

Sharing economy is a hybrid market model which refers to peer-to-peer-based sharing of access to goods and services, such as Uber, Lyft, ZipCar, and Snapgoods. Among them, Airbnb is an innovative platform of sharing economy in hospitality industry. It allows owners rent out their house while they are not using it. Being a host (e.g., rent your real estates to guests) is a new type of "entrepreneurship" in this economic trend. To be an entrepreneur in sharing economy platform, we are interested in your opinion regarding essential resources. Following questions are related to different types of resources that are related to the entrepreneurial venture. Please answer each question correctly.

PART 1. This section is to measure how important you think each entrepreneurship-related resource is in the sharing economy platform. Please correctly rate importance of each resource on a scale of 1 (Not at all important) to 7 (Extremely important).

Questions	1: not at all, 4: neutral, 7: extremely important
On the sharing economy platform, the financial plan for business startup costs (purchasing house, car, and/or tool) is important to a sharing product/service provider.	1 ----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7
On the sharing economy platform, funds, loans, and credit are important to a sharing product/service provider.	1 ----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7
On the sharing economy platform, investment opportunities available are important to a sharing product/service provider.	1 ----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7
On the sharing economy platform, cash and other monetary resources available are important to a sharing product/service provider.	1----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7
On the sharing economy platform, governmental support (e.g., tax incentives) is important to a sharing product/service provider.	1----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7
On the sharing economy platform, social relationship is important to a sharing product/service provider.	1----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7
On the sharing economy platform, social interaction with peers is important to a sharing product/service provider.	1----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7
On the sharing economy platform, marketing activities are important to a sharing product/service provider.	1----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7
On the sharing economy platform, trustworthiness of products and services is important to a sharing product/service provider.	1----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7
On the sharing economy platform, word-of-mouth of customers is important to a sharing product/service provider.	1----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7
On the sharing economy platform, creativity is important to a sharing product/service provider.	1----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7

On the sharing economy platform, knowledge regarding business operation (e.g., customers, products, and suppliers) is important to a sharing product/service provider.	1----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7
On the sharing economy platform, knowledge regarding business environment is important to a sharing product/service provider.	1----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7
On the sharing economy platform, motivation to explore a new business is important to a sharing product/service provider.	1 ----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7
On the sharing economy platform, education level is important to a sharing product/service provider.	1 ----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7
On the sharing economy platform, job training is important to a sharing product/service provider.	1----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7
On the sharing economy platform, past entrepreneurship experience is important to a sharing product/service provider.	1----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7

PART 2. To what extent do you consider the following factors to contribute to entrepreneurial success? Indicate from 1 (not at all important) to 7 (extremely important).

Questions	1: not at all, 3–4: neutral, 7: extremely important
Doing a kind of job I really enjoy.	1----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7
Helping to solve the problems of my community.	1----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7
Keeping the business alive.	1----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7
Keeping a path of positive growth.	1----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7
Facing new challenges.	1----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7
Creating jobs for others.	1----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7
Being creative and innovative.	1----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7
Being my own boss (independence)	1----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7
I would love pursuing an entrepreneurial venture on the sharing economy platform.	1----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7
How tense would you be in the entrepreneurial venture on the sharing economy platform?	1----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7
How enthusiastic would you be in the entrepreneurial venture on the sharing economy platform?	1----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7

PART 3. Please state to what extent these statements correctly describe your thoughts regarding entrepreneurial barriers in your entrepreneurial venture. Indicate from 1 (not at all) to 7 (extremely).

Questions	1: not at all, 3–4: neutral, 7: extremely important
It is very likely that I will start an entrepreneurial venture on the sharing economy platform someday.	1----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7
I am willing to make any effort to become an entrepreneur on the sharing economy platform.	1----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7
My professional goal is to be an entrepreneur on the sharing economy platform.	1----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7
I am determined to start a business on the sharing economy platform in the future.	1----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7

PART 4. DEMOGRAPHIC INFORMATION

1. What is your gender?
- ❍ Male
- ❍ Female
- ❍ Other

2. What is your age level?
- ❍ 18 - 24
- ❍ 25 - 30
- ❍ 31 - 40
- ❍ 41 - 50
- ❍ 51 - 60
- ❍ 61 or older

3. How could you describe your ethnicity?
- ❍ White
- ❍ Black or African American
- ❍ American Indian or Alaska Native
- ❍ Asian
- ❍ Native Hawaiian or Pacific Islander
- ❍ Other

4. What is your education level?
- ❍ Less than high school
- ❍ High school graduate
- ❍ Some college
- ❍ 2 year degree
- ❍ 4 year degree
- ❍ Professional degree
- ❍ Doctorate

5. What is your income level?
- ❍ Less than $10,000
- ❍ $10,000 - $19,999
- ❍ $20,000 - $29,999
- ❍ $30,000 - $39,999
- ❍ $40,000 - $49,999
- ❍ $50,000 - $59,999
- ❍ $60,000 - $69,999
- ❍ $70,000 - $79,999
- ❍ $80,000 - $89,999
- ❍ $90,000 - $99,999
- ❍ $100,000 - $149,999
- ❍ More than $150,000

6. Are you currently employed?
- ❍ Employed full time
- ❍ Employed part time
- ❍ Unemployed looking for work
- ❍ Unemployed not looking for work
- ❍ Retired
- ❍ Student
- ❍ Disabled

7. How could you describe your entrepreneurial experience?
- ❍ Former entrepreneur but not now
- ❍ Prospective entrepreneur
- ❍ Currently active entrepreneur
- ❍ No entrepreneurial experience at all

Thank you very much for your participation!